

A Witch's Manifesto • Outlaw Volunteer • Robot Olympics
• Forest activists: negotiating tactics • Brian Eno on world music



No. 74 Spring 1992

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WHOLE EARTH

ACCESS TO TOOLS & IDEAS

The Goddess Is Alive



REVIEWS:

- Healing Gaia
- Pagan zines
- The Goddess remembered
- Old-growth access
- Investment guides



WHAT WE DO AT WHOLE

IF YOU PICK UP this magazine without knowing what *Whole Earth Review* is about, you'll probably be surprised. Yes, we do regularly publish articles about ecology. But that's only part of the mix. It isn't easy to pin us down by looking over the table of contents.

Twenty years ago, Stewart Brand's statement of purpose for the *Whole Earth Catalog* was:

"We are as gods and might as well get good at it. So far remotely done power and glory — as via government, big business, formal education, church — has succeeded to the point where gross defects obscure actual gains. In response to this dilemma and to these gains, a realm of intimate, personal power is developing — the power of individuals to conduct their own education, find their own inspiration, shape their own environment, and share the adventure with whoever is interested. Tools that aid this process are sought and promoted by the *Whole Earth Catalog*."

We still believe that. But we're a different team and it's a different world. We think we can be more precise about "tools that aid this process." So the *Whole Earth Review* staff has thought and talked and composed this statement of purpose. We're eager to hear what you think of it.

• We are dedicated to demystification, to self-teaching, and to encouraging people to think for themselves. Thus our motto: "Access to tools and ideas."

Tools in the Whole Earth sense include hammers, books, and com-

puter conferencing systems. Our readers are a community of tool-users who share information with one another. The ideas we make accessible have not often been found in university courses, but are becoming recognized as part of what you need to know to be truly educated. Our readers contribute to the editorial content as well, with both reviews and articles.

• We recommend rather than attack.

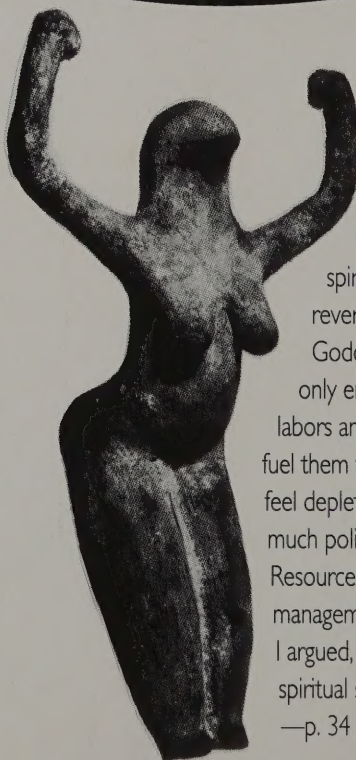
Our magazine is an evaluation and access device. It can help you discover what is worth getting and how to get it. We're here to point, not to sell. We have no financial obligation or connection to any of

the suppliers reviewed. We only review stuff we think is great. Why waste your time with anything else?

• We change with the times that we help change.

Our publications are a call to, and support for, individual action. The first *Whole Earth Catalogs* were aimed at the so-called counterculture, the back-to-the-land folks who were attempting to live as much as possible outside the system. As we hoped, many of the attributes of the counterculture movement became mainstream, especially ecological issues and related concern with energy efficiency. Our publications have been

IN THIS ISSUE



I have been an activist for twenty years and a witch for much longer. I have grown old trying to convince and teach

feminist and mainstream

women that spirituality and reverence for the Goddess would only enhance their labors and, in fact, fuel them when they feel depleted by too much political work. Resource/energy management, I argued, is a spiritual skill.

—p. 34

The most valuable contribution of the 1980s computer industry was not a machine, but an idea — the principle of open architecture. —p. 72

EARTH REVIEW



influential. But we don't spend much time thinking about the same things we thought about in the sixties, and neither do our readers. This magazine and our catalogs progressed from being part of a social movement to being a trusted reference like a good encyclopedia. We update ourselves continually.

• **By not accepting display advertising, we have extraordinary editorial freedom to publish anything we think our readers need to know.**

Conventional magazines exist and profit because they can deliver readers to advertisers; subscriptions are a much less important source of income. Most magazines fish for

readers and feed them to advertisers. We fish for information and feed it to readers, who sustain us with their subscriptions. For readers, this means unobstructed and challenging editorial material and unbiased reviews.

• **We're not a "political" magazine.**

We are committed to providing political tools and new ways of thinking about politics, but we are not a forum for partisan politics.

• **We are deliberately eclectic.**

Our content is addressed to many communities of readers who lead different kinds of lives, and who may disagree with one another about many things. We provide tools for environmental activists; we give technology-watchers and tinkerers a window on tomorrow's scientific trends. Our readers are men and women, young and old, urban and rural, from all around the world. They like to have their worldviews expanded and their assumptions challenged. They don't mind taking the time to read, to think, and to discuss new ideas. We offer tools for generalists.

—The Staff of *Whole Earth Review*

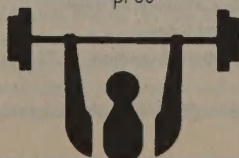


The red glow on the rows of tombstones was surreal beyond words. Trees surrounding the cemetery dripped flaming embers like rotten fruit from hell. An overcast of smoke drifted across the rising moon and a gentle rain of ash settled over all. It was worlds away from the quiet Sunday lunch with friends that had started my afternoon. —p. 4

The only place David always wins against Goliath is in the Bible story. Too often, grassroots activists are emerging from advisory boards and work groups without even their slingshots intact. —p. 18

Everybody expected that the first true child born of the electronic computer would be the robot, a metal man to stand at the pinnacle of machine evolution. Today, more than a generation after computers appeared on a mass scale, the dominant image of robots is still that of an artificial human being, usually recognizably male.

—p. 80



In the inevitable crisis the inefficient, top-heavy organizations will not survive. The survivors will be different from the organizations of today. —p. 86

For

the last 30 years in America, individual investment has been shrinking to negligible importance, at least when it comes to influencing what corporations do. The power has passed not to overseas investors, but to the simultaneously powerful and impotent new institution of pension funds.

—p. 94



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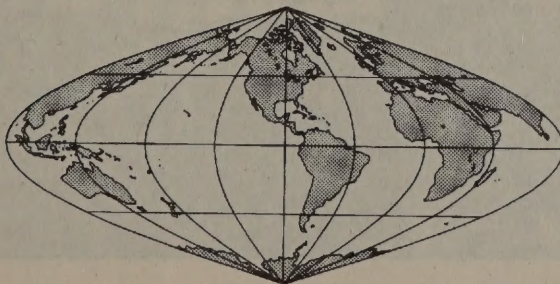
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COVERS

Nadine Epstein (front cover) is a generalist's dream. She sent us slides of her artwork on Goddess themes; wowed, we decided to use one for the cover of this Goddess-oriented issue.

Nadine also writes and adventures: she tracked down and interviewed Rosita Arvigo, a woman from the US who became a shaman in Belize. That article will be in our next issue.

Daniel Dancer (back cover) specializes in photo-

graphing threatened environments in both their natural and degraded states. However, his major artistic works are the eco-mandalas ("planetary acupuncture") he creates on site from found materials in endangered ecosystems. To learn more about this aspect of his art, read his story, "The Prairie Shield," in *The Earth First! Reader* (reviewed in *WER* #73, p. 112). You can rent a touring show of his work, *Sacred Ground/Sacred Sky*, including photographs and an eco-sculpture, by calling Exhibits USA: 800/473-3872.

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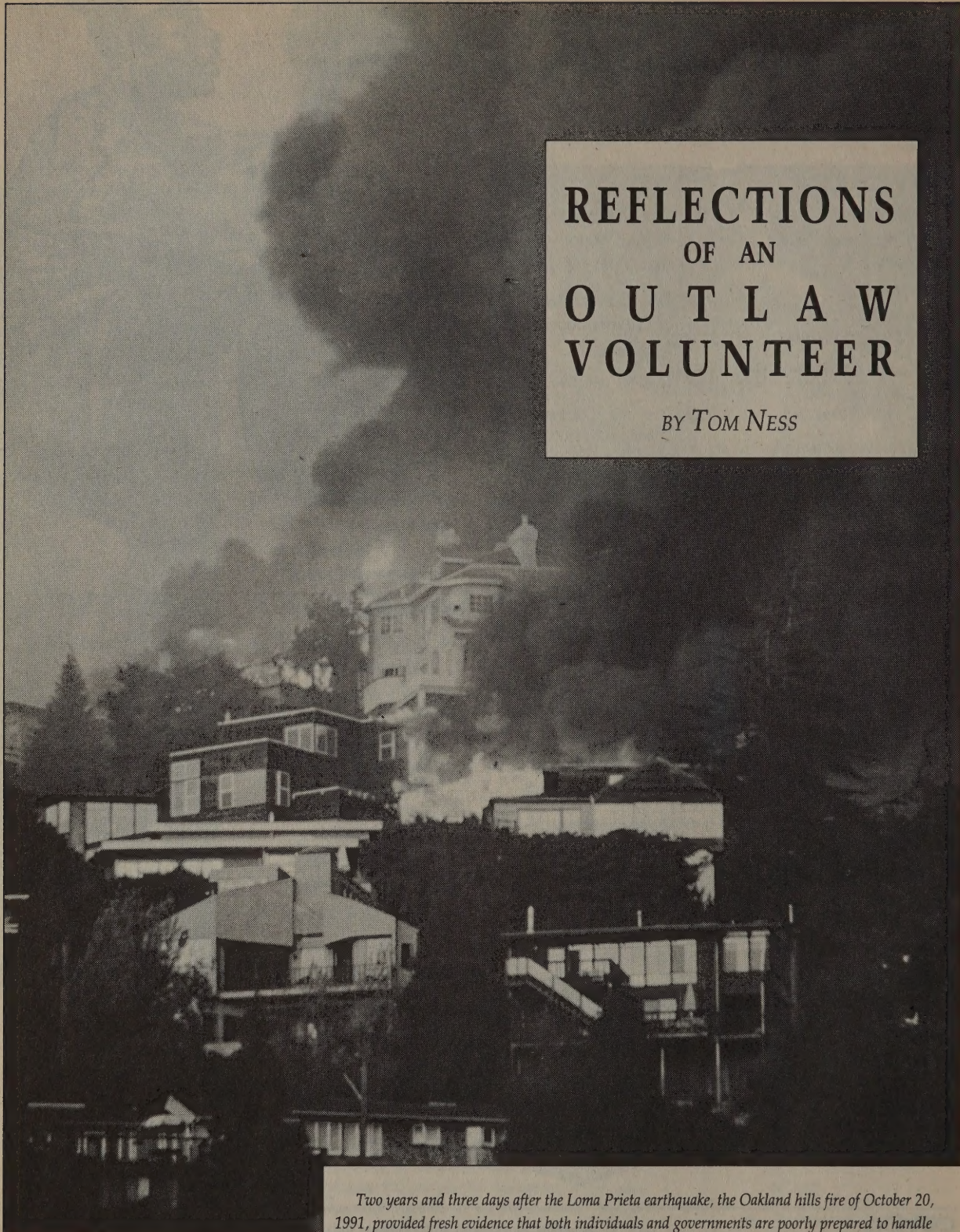
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REFLECTIONS OF AN OUTLAW VOLUNTEER

BY TOM NESS

Two years and three days after the Loma Prieta earthquake, the Oakland hills fire of October 20, 1991, provided fresh evidence that both individuals and governments are poorly prepared to handle major disasters.

Civilizing tends to insulate people from the natural world. The great irony here is that those who live in the hills of Oakland — and in similarly overvegetated havens throughout the country — have reacted to this separation by choosing to live surrounded by nature as much as possible. They have done so without adequate understanding of vegetation as fuel.

Good motive, dangerously inadequate execution, and a staggeringly high cost: 25 dead, 3,354 residences damaged, 2,890 homes and 464 apartments totally destroyed. Individual preparedness can make

David Cross



HE RED GLOW ON the rows of tombstones was surreal beyond words. Trees surrounding the cemetery dripped flaming embers like rotten fruit from hell. An overcast of smoke drifted across the rising moon and a gentle rain of ash settled over all. It was worlds away from the quiet Sunday lunch with friends that had started my afternoon.

From San Francisco it had quickly become apparent that the huge cloud of smoke rising over the East Bay hills was no ordinary fire. Large pieces of charred bark, leaves, and paper began falling out of the sky, and the television news put out the first calls for volunteers. Hurrying through the rest of my meal, I pulled on heavy boots, grabbed a shovel and gloves, filled a daypack with canteens of water, and sped across the Bay Bridge.

I had a pretty good idea of what had struck in the East Bay hills. In reading wildfire expert Stephen Pyne's *Burning Bush: A Fire History of Australia* for review (WER #72, p. 92), this passage stood out:

The Berkeley fire of 1923, which consumed about a fourth of the city and entered the University of California campus, was propelled in part by windfall and litter from extensive eucalypt plantings. The scene had little improved when an Australian fire specialist visited the Bay Area in the 1960s. Familiar with the intensity of eucalypt fires in their native setting, he gasped at the specter that greeted him — the intermixture of houses and giant eucalypts, branches and bark piled deep, a surreal sclero-forest composed equally of *Eucalyptus* and houses. Shaken, he abandoned the conference tour and retired to his motel room, his head spinning with visions of holocaust.

Thousands of people, residents and city officials alike, should have known that this holocaust was not an *if* question but a *when*. But hubris and denial had prevented anyone from taking it seriously. Marge Haskell of the Oakland City Council had originally run for office on a platform of better fire preparedness. She recalled the heightened community awareness of the danger "for about five years after the 1970 fire." But as memories of that two-square-mile fire that destroyed 37 homes faded, homeowners slipped back into their old ways of ignoring fuel buildup. Haskell could only lament "all the basic things people have not kept up with." In the 1991 fire, Councilwoman Haskell lost her own home.

Planning for this disaster may have existed in some form on paper, but the real-world actions that could have been taken were lost in the heady pursuit of the good life in the California hills. Streets through exclusive neighborhoods were narrow and winding, with overhanging tree crowns that joined over the center. Incredibly, there were no building-code restrictions on wood-shingle

all the difference in surviving a wildfire. In the hope that a learning curve is not a fanciful notion, what follows can help you to make your own life more fire-safe.

Tom Ness reacted to the smoke that blanketed San Francisco that Sunday by going to Oakland, breaking the rules, and eventually fighting and stopping the fire along a tiny part of what turned out to be its southernmost perimeter. He is one-half of New Tribe, a diversified products company currently in the process of moving from San Francisco to Oregon. Products we have reviewed from New Tribe include the Saddlepack (WER #46, p. 67), Weed Wrench (#61, p. 97), and Treeboat (#62, p. 102). Write New Tribe at 5517 Riverbanks Road, Grants Pass, OR 97527.

—Richard Nilsen

roofs or siding (the equivalent of wrapping your house in kindling). That major lapse in sound public policy ignored centuries of experience. Even as early as 1189, the Lord Mayor of London issued an ordinance requiring that all new construction have stone siding and slate roofs, effectively banning thatch. After the Boston fire of 1679 leveled 155 major buildings, along with rows of ships at the docks, stone or brick walls and "tyle" or slate roofs were mandated there.

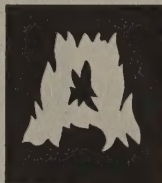
Still, the conflagrations continued. In *Principles of Fire Protection*,* author Percy Bugbee includes a table of urban holocausts attributed to wood shingles:

May 3, 1901	Jacksonville, FL
<hr/>	
April 12, 1908	Chelsea, MA
<hr/>	
June 25, 1914	Salem, MA
<hr/>	
March 21, 1916	Paris, TX
<hr/>	
March 22, 1916	Nashville, TN
<hr/>	
March 22, 1916	Augusta, GA
<hr/>	
May 21, 1917	Atlanta, GA
<hr/>	

Even with a string of disasters in recent California history to refresh everyone's memory, wood shingles are still a preferred architectural status symbol. People like the way they look, fire danger be damned. Most of the roofing suppliers interviewed by the Bay Area media in the aftermath of the fire frankly admitted that they would continue to sell wood shingles until the law forced them to stop. Most dealers also offered fire-retardant wood shingles at a higher price, but the treatment chemicals are known to leach out long before the shingles' 25-year life span.

* 1988, National Fire Protection Association (Quincy, MA). 800/334-3555.

Back-up generators to keep water flowing if electric power fails had been rejected as too expensive. So another weak link in the area's disaster response system was guaranteed to snap.



AFTER THE GREAT Chicago Fire in 1871, the City Council mandated rebuilding with brick and stone. But by 1874, enforcement

of the rules had become so lax that insurance companies became alarmed. The National Board of Fire Underwriters, an industry group, finally had to force the issue by closing all insurance offices in Chicago for two months, refusing to write new policies. But insurance companies are not in business to form social policy; they just statistically assess risks, and charge what they need to leave a profit after covering claims.

In an interview with Glenn Goodson of the San Jose office of Allstate Insurance Company, we discussed ways in which fire insurance premiums are determined. Most of the factors considered simply deal with the replacement cost of a structure, not its flammability, which is assumed. The distance from, and capability of, the nearest fire house are considered. Each local government must balance tax money spent on fire protection against the insurance premiums their

citizens will be hit with if they cut back. But when it comes to wood shingle roofs, the sharing of fire risks across the entire premium-paying public leaves everyone without adequate economic incentives to do the right thing — ban them.

Although some insurance companies offer discounts for fire-resistant roofing, none have gone the other direction and slapped surcharges on the most flammable. In any event, the difference in premiums has been too small to deter people from indulging their aesthetic preferences for flammable roofing. Statistically, most fires start inside of structures, not outside. Because insurance-company number-crunchers have determined that they can profitably underwrite high-risk structures at premiums the owners of those structures will accept, reform must come from another direction. As Glenn Goodson put it, "For an insurance carrier to say that they will not underwrite wood-shingled houses is to say they aren't in business."

Just as the insurance companies are not in business to write sensible building code restrictions, the East Bay's water district is not in business to fight fires. But their water system pump houses are nonetheless a critical link in the area's sustained ability to battle large fires. Back-up generators to keep water flowing if electric power fails had been rejected as too expensive. It is almost certain in any disaster, whether an earthquake or major fire, that power will either fail or have to be shut down for safety reasons. So another weak link in the area's disaster response system was guaranteed to snap.

But most importantly, there was no serious effort to control the steadily accumulating brush, leaves, bark, and deadwood choking the spaces between the houses. In the spring of 1991 the California Department of Forestry measured fuel loads on the ground in the Berkeley and Oakland hills of up to 30 tons per acre. Five years of drought and seven months straight without a drop of rain had desiccated the fuel to the bottom of

deep layers. By Saturday, October 19, weather forecasters knew that an unusual hot, dry wind would sweep over the area on Sunday and "red-flagged" the day with an explicit warning in their forecast that fire danger would be extreme. All of the elements of a disaster were assembled.

As my speeding motorcycle slid underneath the greasy black cloud at the east end of the Bay Bridge, the early afternoon sun became an orange orb. A voice inside my helmet asked if this was what it was like to descend into hell. Instantly another voice replied, "No, no one will be shooting at you." There was comfort knowing that nature is a much less efficiently deadly foe than man.

Racing through the city streets, I

went on a maddening search for the volunteer assembly location, first to the place broadcast by the media, then to three more places named by the Berkeley or Oakland police. Oakland Technical High School was the right place. Outside was a tangle of ambulances, a firefighter stretched out on the sidewalk wracked with violent coughing, and gear being frantically distributed. Inside the gymnasium was a bedlam mixture of volunteers and evacuees. Finding my way to a volunteer sign-up line, I saw the felt-penned poster that only *experienced fire crew members* were being accepted. With only Navy shipboard firefighting training twenty years ago

and a recent battle with a small brushfire in Oregon, I couldn't claim to meet their qualifications.

With a cynical understanding of the cover-your-ass bureaucratic mindset that had ruled on the qualifications, I walked back into the street and joined the throngs of gawkers pressing as close to the fire area as the police would allow. Some residents of the area watched like rats hypnotized by a snake. Others calmly stuffed their cars with valuables and prepared to flee. Half a mile away the skyline was one solid sweep of elegant homes in flames, accented occasionally by stately 100-foot pines

Wildland Firefighting

In terms of making a house more resistant to wildfires, most readers would be better off taking the money this textbook would cost and using it instead to buy a pruning saw, or gloves and a pair of shears, and start bushwhacking a thirty-foot clearing around the structure. But if you appreciate looking at a definitive text, or if you are on a planning commission, rural town council, or the executive committee of a homeowners' association, you need to see this book.

Suburban expansion used up the flat land hereabouts long ago; this fact, plus people's desire to return to nature, puts houses where none used to be, and has coined a new term — the "wildland/urban interface." It's important to realize that part of the view all those former homeowners in the Oakland hills so cherished was of the skyscrapers in downtown San Francisco.

Anyone planning to build a home in this zone who spends an evening with this book and doesn't make some design changes in the house plans is either already a fireman, or daft. Subtitled "Fire Behavior, Tactics & Command," **Wildland Firefighting** is all about the tools and militarily precise routines that allow fire crews to function safely and effectively as a team. —Richard Nilsen [suggested by Gerald Myers]



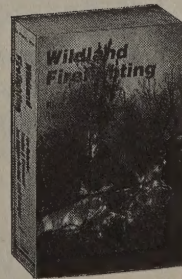
As a general rule, if a roof fire (wood shakes) is discovered on arrival in a wind-driven wildland fire, it's considered a write-off by tactical definition.

- **Problems endemic to the wildland/urban interface**
Providing structural protection during a wildland fire presents a myriad of problems for the incident commander and/or operations chief. The difficulties associated with protecting structures during a wildland fire really start with the homeowner. Most homeowners in the wildland/urban interface:
 - A. Have not experienced, nor do they understand, the problems associated with a wildland/urban interface fire.
 - B. Moved into the wildland/urban interface wanting natural aesthetics; the "back to nature" syndrome.
 - C. Feel very secure and certain that the local fire department will be able to protect their homes should a fire occur.
 - D. Know little about how flammable vegetation will react during a fire — the "it all looks so green" syndrome.
 - E. Feel a major wildland/urban interface fire is a low probability.
 - F. Have read articles or heard how flammable wood shake and wood construction is, but still feel the beauty and natural

appearance far outweigh the risks.

G. When asked the question, "Would you evacuate your home if a fire threatened?" most say no.

Fire departments are going to have to spend a lot of time and energy educating architects, contractors, planning commissions and subdivision and review committees on the growing problems with expansion into the wildland/urban interface.



Wildland Firefighting

Don Perry, 1990; 412 pp.

\$33.95 postpaid from Fire Publications, 9072 Artesia Boulevard/Suite 7, Bellflower,

exploding. I felt a little ridiculous standing there with a shovel and dressed to fight a fire, but the authorities had rejected my strong body and good will.

After a couple of hours as a spectator, I began to realize that official control of the fire area was not nearly as good as they would have liked civilians to believe. Towards dusk I slipped up a side street and started wandering toward what I thought was the southern edge of the fire. I was counting on a difference of opinion between the bureaucrats down on the flatlands and the firefighters in the hills as to how much firefighting experience was necessary to be useful. I was not expecting what I found.

As the fire's perimeter had rapidly expanded during the day, fire crews on the line had stretched and separated like lettering on an overfilled balloon. There were unattended fires everywhere I looked. Yet able-bodied volunteers were being spurned by the hundreds. Later I was to learn that even professional firefighters had been kept off the lines for lack of an assignment from the disorganized, splintered command structure. Worse, the next day I saw video footage from Sunday evening of water tank trucks dumping their loads on the pavement before they went home, having been told that they were unneeded. Two years after the 1989 earthquake, it was as if nothing had been learned about coordinating a rapid response to a large-scale disaster. Even the standard 2½-inch fire hoses brought by crews from outside the area could not be used with Oakland's 3-inch system, and there were costly delays while adapter fittings were found and brought to the front.

Once I had gotten through the police lines, I was free to choose any fire I wanted to fight. Wandering through the Claremont Country Club golf course and then Mountain View Cemetery, I was surrounded by flaming trees but afforded complete safety by the broad lawns. Inexplicably, with fire crews blocks away suffering from critical shortages of water, rain-

bird sprinklers were clack-clack-clacking all around me as they poured thousands of gallons per minute onto lawns that wouldn't burn if they tried. Of course, the fires in the wooded areas there were unimportant *where they were*, but the question was, *where were they going?* The answer was, back into a residential area beyond, unless someone stopped them where they were.

So that's what I did, by myself, one man with one shovel, without legal authorization.

If all fires or all parts of a fire were like the infernos shown on the TV news, attacking them alone with a shovel would be silly suicide. But remember that news cameramen get paid to find the most exciting, violent footage they can record, not to

How To Burn

The Oakland fire was contained on its north flank by a bulldozed firebreak along the property boundaries of the University of California's Berkeley campus. Tucked into these undeveloped hillsides and canyons of open space above the main campus are the Botanical Garden, a recreation center, and the Lawrence Berkeley Laboratory. These hillsides will one day be visited by fire as well — it's a natural, recurring event for this ecosystem. Thanks to good management and preparation, that fire will be very different from the one that roared through the Oakland hills.

It was campus neighbors who got the ball rolling — homeowners worried by the ever-accumulating fuel loads on UC land. Recognizing a real danger and a potential liability if a fire on campus land crossed into nearby houses, the university acknowledged the situation with a 1,500-acre management plan, written in 1986. In some places, vegetation was so overgrown that the first step was to graze a herd of goats (they created openings and ate most everything, including poison oak).

The kind of fire you get depends on what is burned. A grass fire stays low and can often be stopped with a garden hose. Denser vegetation, like un-

managed thickets and unpruned trees, makes a much hotter fire, with heat capable of exploding a structure's windows and allowing flames to be sucked inside.

One of the most dangerous fuels is Australia's gift to the world, the eucalyptus. Unmanaged, it drops branches, bark and leaves to the ground, forming a chokehold in which little else can grow (below);



Carol Rice



Carol Rice

present a balanced overall impression. The death toll from this disaster speaks for itself, telling of horror-filled last seconds surrounded by fast-moving walls of flame. But many factors control the intensity of a blaze, giving it mood swings like those of a manic-depressive. A fire burns uphill much faster than it burns downhill. Air velocity, temperature, and relative humidity are

all important and can change dramatically, especially between night and day. Perhaps most important is the fuel load, expressed in tons per acre, and its moisture content. Decades of research have gone into studying these factors all over the world, producing mountains of data for assessing relative dangers and determining the right times for prescribed burning.

Where I was, as long as I stayed out from under the dripping hell-fruit I could walk right up to the fire. Growing up as a farmboy, burning large piles of orchard prunings was a routine chore, so I was very familiar with being close to fire. Every person has a built-in thermal canary-in-a-coal-mine in the tips of their ears. Your ears become painfully hot well before the air temperature is capable of sear-

Without Burning Up



Rich Aronson

a ten-acre control burn in a eucalyptus grove is shown (bottom, opposite page). Fire ecologist Paul Veisze holds up a metal clipboard to document the burn as he monitors it (left). The result (below) will green up with grasses after the rains and produce a much cooler fire when it inevitably burns.

UC Berkeley's fire-management program is headed by Carol Rice, a fire manager and private consultant. She can be reached at Wildland Resource Management, 134 Journey's End, Walnut Creek, CA 94595; 510/944-5282. —Richard Nilsen



Carol Rice

ing your lungs or igniting your clothing. Pay attention to that warning sign, and you will always back up and cool off before the danger point is reached. Choosing places where the fire was creeping through pure leaf duff, I could pick up the burning material a shovelful at a time and toss it back in on itself, separating the fire from the fuel supply. I halted my first two fires that way and moved on.

Passing through the fire's leading edge on the safe passage of an asphalt road at the back of the cemetery, I was amazed to have encountered not a single firefighter. A dirt road turned into the woods parallel to the slowly advancing line of fire, and I was encouraged to find this ready-made fire break. The dirt road dead-ended 100 yards into the woods, then a footpath led another thirty yards up to Moraga Avenue. A large crowd of gawkers was watching the fire move down the hill, but there were no tools and no initiative.

As I stopped to rest and assess the situation, Oakland Police Department motorcycle officers began ordering the evacuation of the area. I tried to ask an officer where I could find a firefighter to tell about the dirt road, but he angrily ordered me out of the area without hearing my question. Others in the crowd were incredulously yelling, "Where's the fire department?"

Convinced that it was worth making a stand at the dirt road, I slipped into the shadows at the first house instead of retreating with the crowd. Around the corner of the house was a man crouching in the dark, hosing down the dry vegetation on the hillside. It was his mother's house, and he was going to do his best to save it. After I made a joke about having to break the law to do the right thing, I told him I was going down to the footpath to widen it into a fire break. I was only partly finished with that job when my worst fear came true.

Flames were leaping up in the woods behind me; a firebrand had leaped overhead in the turbulent hot air above the main fire (called a convection column) and fire was now on the

Your ears become painfully hot well before the air temperature is capable of searing your lungs or igniting your clothing. Pay attention to that warning sign, and you will always back up and cool off before the danger point is reached.

wrong side of my precious dirt road. Now there was nothing between this spot fire and the next row of houses but a few minutes' burning time. I bellowed a warning to the man with the hose and began crashing my way through the brush towards the new fire. In the dark on the steep hillside I tumbled head over appetite through deep blackberries, coming to rest tangled and inverted. Struggling free, I pushed on. Once at the spot fire, I was dismayed to find that the green carpet of English ivy leaves concealed ten inches of dry debris underneath which burned fiercely. Worse, the tangle of tough stems was impossible to attack with a shovel, whether by scraping, digging, or beating.

After two minutes of eternity, the man had added another length of garden hose and was able to get barely within spraying range of the fire. An old downed utility pole soaked in creosote refused to go out on the side opposite the stream of

water. With some quick inventing and teamwork, I deflected water back to the pole with my shovel blade as he followed my movement with the hose stream. We had won, and we'll never know how many homes it saved.

Back to clearing a fire break on the footpath. Two teenagers arrived to help, defying the evacuation order like I had. But they were not dressed for firefighting and had no tools, so their help was limited to scraping fire break with sticks as best they could. Then two young men arrived with shovels, bringing our band of outlaw volunteers up to five. I had not seen an official firefighter yet, was not sure if they would arrive at all and, if they did, whether they would welcome our help or kick us out of the area. We had a very good chance of halting the fire at the dirt road by ourselves, but the arrival of a real fire hose would make it a sure thing. At the last minute before the fire reached the road, a pump truck stopped at the top of the footpath on Moraga Avenue. Dragging their hose down the path, the Official team linked up with the Outlaw team. They were happy to have our help, no questions asked. Quickly sizing up the situation, the Official team leader said into his radio, "We can stop it here." That's exactly what I had wanted to tell a firefighter before the motorcycle cop tried to chase me away.



WITHIN A ONE-hundred-yard stretch of the fire's front, I had the opportunity to sample a smorgasbord of fuels.

Native and exotic plants intermingled in ways to produce significantly different fuel-load conditions only feet from each other. The dominant plant of the ecosystem is the blue-gum eucalyptus tree, an extremely invasive exotic from Australia. With allelopathic debris (they produce chemicals in their leaves and bark that suppress competing plant species), they extirpate most native

plants in the area. With poison oak (native), French broom (exotic), English ivy (exotic), and blackberries (some native, some exotic) able to survive under the eucs, the understory becomes a tangled mess ranking with the most fire-prone in the world. The eucs continuously deposit oily leaves, bark, and deadwood on the ground and have evolved a *need* for a fire every couple of years to hold the fuel load to safe levels. Whether it is ignited by lightning, an aborigine, or a forest ranger matters not to the trees, but they will make you pay if they don't get their fire fix.

In contrast, here and there was a native California live oak that had not yet been killed by the eucs. They have evolved to survive wildfires, but not to promote them like the eucs. Eucs shed dry sheets of bark laden with volatile oils in copious quantities; the oaks hold onto their scaly, fire-resistant bark as long as they can. The oaks tend to hold their deadwood aloft further into the rotting process, rather than add it to the fuel load on the ground. Termites, ants, and borers break down the oak deadwood in the tree (where they contribute richly to a variety of bird diets) before the branch falls to ground as spongy, low-mass punk with little fuel value remaining. The oak-leaf litter itself is less oily, burns with a low flame and, since it is not so tangled with deadwood, is easy to put out with only a shovel.

Long before this fire, University of California land management specialists had recognized this difference between native plant communities that merely survive fire and the imported Australian forest that actively promotes it. They had begun razing eucalyptus woodland on the campus's Berkeley hillsides and replacing it with native plants. Immediately after this fire, this difference became common knowledge in the media and there was discussion of banning new planting of eucalyptus. There was already an ongoing controversy between botanists, who want to get rid of the eucs because of their damage to biodiversity, and some tree fanci-

ers, who fail to recognize the requirements of a healthy ecosystem. That debate had been fueled by the severe December 1990 freeze, which demonstrated the vulnerability of the Aus-

tralian flora to the extremes of California climate. The massive quantities of freeze-killed leaves and branches still held aloft in the trees became a major contributing factor to this fire.

Homestead Fire Prevention and Suppression

*A decade after Gerald Myers reviewed this book in **The Next Whole Earth Catalog**, it is still available, and still the one to get for rural fire situations. (The price has increased by 50 cents.)*

From Gerald's earlier review: "It is one of the few fire books that does NOT assume you are male and have a fire truck to play with — just that you are intelligent people with hand tools" (NWECC p. 310). Back then, the proceeds from this book went toward buying a fire truck for a volunteer company in Northern California. "They bought the truck," Gerald says. "It's a good little brush rig, and has served them well, but now they are saving up for a truck that can fight structural fires."

—Richard Nilsen

■ Be sure you have a complete picture of the fire and what it is doing before you attack. The first person or first crew leader to arrive at the fire should immediately size it up. This may entail scouting the whole perimeter of the fire. Remember to think of these things:

1. Crew Safety in relation to:
2. Endangered lives, houses or other improvements or resources.
3. Wind Direction, velocity, gusts, potential for change.
4. Type of fuel that is burning.
5. Type of fuel in the path of the fire.

6. The steepness of the slope.
7. Any natural breaks.
8. All escape routes.

Consider where the fire is most likely to spread into heavy fuels or to start up a slope. These are things that will result in greater heat and faster spread. Look for spot fires which could need attention before the main body of the fire.

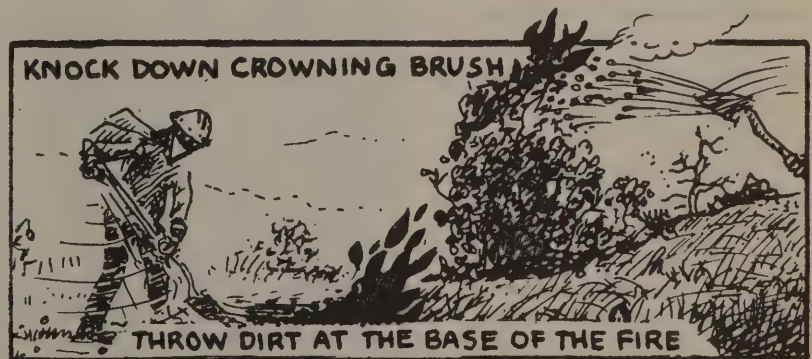
If there are any houses, buildings, or other improvements in the probable path of the fire, consider their protection. Every effort should be made to save someone's home, but remember, all improvements, even your house, are replaceable. Arms, legs, eyes, lungs and lives are not.



Homestead Fire Prevention and Suppression

Crooked Prairie Fire Crew, 1980; 90 pp.

\$5 postpaid from Crooked Prairie Fire Crew, P. O. Box 938, Redway, CA 95560



Dirt can be used much like water to knock down and smother a fire. The dirt should be thrown in a swinging motion to scatter it in a thin layer at the base of the flames along the fire edge. Best results are obtained by fast continual action. Dirt is an effective tool to check flames in snags, stumps and brush, but . . . do not consider hot material safe when covered with dirt! Fire may hold under the soil for a long time with the potential to flare up later. Buried fire should be uncovered and extinguished after the spread of the fire is checked.

After nearly two centuries of interruption in the ancient California native American practice of routine burning off of wildlands, interest in prescribed burns was growing among land managers. In May of 1991 I toured a 3,000-acre controlled burn that had been done in the wet winter months in Henry Coe State Park, 24 miles southeast of San Jose. The fire had crept along slowly under the trees, burning leaves, deadwood, and brush without harming the forest canopy. The lush new grass and wildflower growth that had burst out of the forest floor was more beautiful than I had ever seen it there.

In discussing controlled burns with National Park Service Ranger Richard Bryant at Point Reyes National Seashore, though, I learned of the bureaucratic barricades that hamper prescribed burn efforts. Richard knows there are areas of the park that could benefit from burning off, but first they must get permission from the Bay Area Air Quality Management District. The District won't let them burn when other sources of air pollution are too high, which is most of the time. And when the air is clean enough to allow a burn, conditions for the burn will be wrong. Given that the right weather and fuel moisture conditions may only occur for a few hours in any given year, they may never get permission.

As we battled our section of the fire to a halt at the dirt road, we could hear another crew of firefighters working their way towards us in the dark, through the trees and brush on our right. Victory was as sweet to them as it was to us, and I could hear them whooping it up like a football team on a scoring drive. Shouts like "Yeah!," "You got it!," "Go, go, go!" echoed through the ravine as their fire-hose streams snuffed the last flames.

After another hour of mopping up, I started the long walk back through the cemetery and golf course, exhausted but satisfied that I had done a good thing. The fellow with the hose and I had saved his mother's house, and it could just as easily have been my mother's house.



ON MONDAY the media were filled with contradictions. The newspapers glowed with accounts of the outpouring of volunteer efforts, which played a critical role. Many of those volunteer efforts were, like mine, technically illegal or done by circumventing bureaucratic edicts. At Monday morning's press conference, Oakland Mayor Elihu Harris angrily denounced all people violating the evacuation orders, saying they could "die by their own foolishness."

I did not see anyone doing anything foolish. I am not a hero. I never felt that I was in danger. I always knew where my escape routes were, and that I could walk away any time I chose. Some people panic in the face of danger and can show judgment like that of a horse trying to run back into a burning barn. Others enter a detached state of calm, clear thinking that seems to spring from millions of years of using our wits to survive in a dangerous world. Everyone needs to know whether their brain toggles towards panic or calm in an emergency. From that they will know whether they can make a valuable

WHAT YOU CAN DO TO PROTECT YOUR HOUSE

1. Take some time to honestly assess the fire risk of your neighborhood, your yard, and your house. If you aren't comfortable with what you see, do your best to change it. Improving the situation in your own yard and house is the easiest. Changing your neighborhood may take some friendly persuasion or even political involvement. In a flammable neighborhood, your fire is everyone else's fire; anyone else's fire is your fire.

2. There is a standard list of fire-prevention practices that should always be met or exceeded: flammable vegetation removed for a thirty-foot-wide fire break around all structures; half-inch square mesh screen on all chimneys; no tree branches closer than ten feet from a chimney, or touching a roof anywhere; no firewood or lumber stacked against structures. Keep your roof and gutters clean of leaves or needles.

3. If you have a fireplace, give priority to consuming deadwood and brush from the immediate vicinity of your house, rather than contributing to deforestation elsewhere by purchasing commercial firewood. Even

throwing brush in your fire a few twigs at a time in the winter is better than that brush setting your house on fire in the summer.

4. Consider a permanently installed roof sprinkler system that can cover the entire roof by opening one valve. There were hundreds of homeowners in the path of the fire who spent precious time putting up ladders and hand-watering their roofs with garden hoses when they really needed to be loading their cars with valuables and evacuating. Then, when the roofs needed water the most, it was too hot to stay up there and too late to grab valuables. For some, it was tragically too late to get out of the neighborhood. The system need not be expensive or complex; in fact, most roofs can be covered with one or two agricultural-type sprinkler heads.

5. Invest in tools. Without them you are a one-legged man in a kicking contest. The McLeod (pronounced mac-cloud) is a heavy-duty combination rake-hoe, and is the hands-down favorite for cutting fire breaks. Next best is the ordinary, long-handled spade-point shovel (D-

contribution or if they should clear out of the area before they hurt themselves.

If there was any foolishness at this event, it was in the failure of the authorities to make full use of all available human and material resources from the moment it was apparent that a disaster was developing. One

of the most important lessons to come out of the Loma Prieta earthquake was that emergency services that are adequate and affordable in ordinary times can become woefully inadequate in a large disaster. It is then that professional egos and liability fears *must* be set aside to make room for capable civilians to step forward. That was the main thrust of



David M. Haaland

handles put you too close to the heat). With it you can scrape, dig, or throw burning material. Every house should have at least one good A:B:C-rated dry-chemical fire extinguisher for inside; the bigger the better. If a small fire outside is beyond the reach of your hose, an extinguisher may be your best bet for a first attack rather than hand tools.

6. Clothing is an important consideration in firefighting; unfortunately, the hot, dry weather when a fire is most likely to occur is also likely to catch you poorly dressed to fight it. Keep leather boots, leather gloves, loose cotton pants, and a long-sleeved cotton shirt ready to grab.

7. The largest-diameter, best-quality garden hose you can find and a good nozzle (preferably one that shuts off)

may be the most potent firefighting tool you can buy for close to your house. Check the diameter of the water supply line that feeds your hose bib. In many houses it will only be half-inch copper or steel pipe. A three-quarter inch supply pipe is better, but in any case there is a whopping difference between the firefighting effect of water and what you can do with only hand tools.

8. Know about how long it should take for your local firefighting crew to arrive after they've been called. That's how long you need to be your own fire department! Have the tools and the plan ready to fill that time with your best efforts; *anything* you can do to slow the fire during that period will help the crew when they arrive. —Tom Ness

Stewart Brand's "Learning From the Earthquake" (WER #68), which was instrumental in shaping my quick decision to head for the fire line. If we do not utilize volunteers, we risk making a disaster far worse.

As quickly as the fire cooled off, investigations heated up. Oakland Fire Chief Lamont Ewell first tried to pin the fire on "natural causes." When the laughter died down at that ludicrous statement, the focus began to bounce around from an illegal construction site, to a homeless camp hidden in the bushes, to various alleged sites of possible arson. What was known was that a small brush-fire had been extinguished on Saturday by the Oakland Fire Department and then left without adequate mop-up and patrol. By comparison, at an eight-acre blaze across the Bay in Saratoga days before, thirty firefighters had stayed for seventeen hours to make sure it was dead out. Gerald Myers, a volunteer with a Humboldt County wildfire-fighting crew for twenty years, was dumbstruck at the negligence in Oakland. "Urban firefighters don't think like wildfire fighters. I would have stayed up with that fire all night long, cold-trailing, looking for white spots, feeling the ground with bare hands for burning roots underground."

But Chief Ewell was quick to reject the observations and speculations of "outsiders." By the following Monday Mayor Elihu Harris, weary of deflecting criticism from himself and his Fire Chief, was pleading in a press conference to "get past the blaming" and "get on with helping the victims." Blame is not that easy to duck, however, and we can be sure that this fire will be studied exhaustively and then studied again.

The political fallout began descending on the Bay Area before the last charred leaf fluttered out of the sky. Fire consultant Robert Burns named six other "urban forests" in the region where conditions were equally ripe for conflagration. Every firefighting professional already knew all of the ingredients that make urban fire-

storms. On a tour of danger areas with KRON-TV, California Department of Forestry Chief Richard Clanton pointed to a spacious home barely visible through the trees high on a hillside and said, "I can't promise we'll even try to save it."

Urban penetration of the forested canyons and ridges around the Bay has long been a planning battleground. On one side are environmentalists struggling to preserve open space with any argument at their disposal. On the other side are developers and property owners who are equally adamant about their right to build on private property. In the middle are county governments and planning offices with one eye on the tax base and the other on the no-growth constituency.

The East Bay hills firestorm is caus-

ing a hard second look at a host of major proposed ridgeland developments involving thousands of new units. There were legitimate doubts before about whether the region could find water supplies for these developments. Now everyone is asking if they can be defended from wildfire. The answers will determine the future of urban sprawl in the Bay Area, and how many acres get added to public open space instead of being built on.

As I left the confinement of the ravine where we had won our small victory, a broader perspective returned. The sky glowed red under towering columns of smoke where scores of houses were still burning on other fronts. It would be two more days before the fire was declared under control, and a week of searching for hot

spots. Alone in the cemetery again overlooking the twinkling city lights, my ears could pick up the gentle nearby sounds of the dying fire, soft hisses and muffled pops. My audio horizon was one of continuous sirens in the distance. This whole thing was so tragic, so predictable, so stupid. Would we learn anything from it? We had cut down one forest, sawn it into sticks, and used that forest to build boxes to live in. Now that forest had burned up, taking our cars, stereos, photo albums, and some of our lives along with it. Would we now cut down another forest to replace those flammable boxes? The cemetery I stood in is for humans. The twinkling city around me is a cemetery for trees, each house a crypt for cedar, fir, pine, redwood, and mahogany. On the most basic level, *that's* what needs to change. ♦

The Limits of Power

This book has been made freshly important by the 1991 Oakland holocaust. In normal times the slow, organic growth of cities can obscure the real forces that determine the types of structures and infrastructures that get built and how long they are retained. But in the aftermath of a great fire, all of the bit players are forced into the open for a compressed round of power-jockeying under unusually intense media scrutiny. The paper trail of news articles, editorials, and government records left by past rebuildings provides a rich resource for urban analysis. The author has deftly woven material on the great fires in Chicago (1871), Boston (1872), and Baltimore (1904) into a very readable whodunit. The subject literally defines what we will live in, work in, travel on, and even flush our toilets to.

Great fires expose underlying forces at work in urban change by suddenly removing the most persistent barrier to change: the physical durability of existing structures. Rapid population growth and the inertia of past practices have continuously left us with cities that lag behind our needs. But even with the clean slates left by fires, we have not been able to get it right. And those were only a few square miles of urban area. What

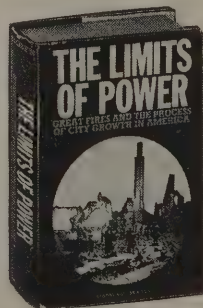
would happen if thousands of square miles of suburbs were made obsolete in a short period of time by the lack of fossil fuels to propel commuters, or the environmental necessity that we stop burning the fuel we have? We may be faced with urban change on a time and space scale that no fire can match.

—Tom Ness

• The basic concern is to some degree a metaphysical one. Indeed it bears a resemblance to the old religious query about the relationship between predestination and free will, a controversy that centered on the Calvinist contention that mere mortals had no power to save their souls through personal endeavor. Are substantial improvements in the human condition in some ultimate sense beyond the reach of humankind? Posed in this way, the question seems so extreme as to be of marginal academic interest. In this case, however, it has a practical side because it casts doubt on the ideals and purpose of modern city planning, a discipline which is based on, and legitimized by, the belief that people can have *both* the expertise and wisdom to improve the urban environment in an optimal way *and* (under the right conditions at least) the capacity to achieve these improvements through deliberate personal

and collective endeavor.

This study provides a bleak answer to its urban version of this metaphysical question. It suggests that because of physical, economic, political, and technological constraints, city dwellers did *not* have the power they needed to adapt their environment to their multi-faceted, ever changing needs in an effective way. Moreover, it suggests that people still do not have this power.



The Limits of Power

Christine Rosen, 1986; 395 pp.

\$54.50 (\$56.50 postpaid) from Cambridge University Press, 110 Midland Avenue, Port Chester, NY 10573; 800/872-7423 (outside NY), 800/227-0247 (NY only)

Healing Gaia

James Lovelock has written an explanation of his *Gaia Theory* for the general reader, with a personable text and striking diagrams of the many subtle biogeochemical systems that enable Earth to function as a planet conducive to life. Lovelock, a renegade scientist by modern standards, provides a running critique of the inadequacies and blind spots of Big Science. His inventions, discoveries and controversial theory are due to genius, but also to the kind of independent science he practices. Lovelock is close in type to eighteenth-century scientists; he pays due respect here to James Hutton, the father of the science of geology, who, observing the circulation of the planet's water, first referred to Earth as a superorganism in 1785.

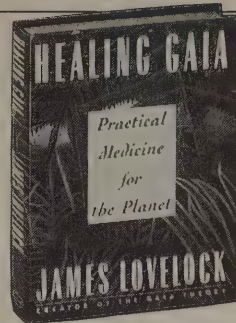
Since the "core curriculum" is currently up for grabs in academia, I nominate this book as one any college student ought to read, to understand both how the planet functions as a whole system, and how science functions as process and business. — Richard Nilsen

■ Gaia is the planetary life system that includes everything influenced by and influencing the biota. The Gaia system shares with all living organisms the capacity for homeostasis — the regulation of the physical and chemical environment at a level near that favourable for life.

■ Gaia became visible through the new knowledge about the Earth gained from space and from the extensive investigations of the Earth's surface, oceans, and atmosphere during the past few decades. While this view lends itself to poetic metaphor, it is also a hard science theory of our planet that came from a top-down view from space. The top-down view of the Earth as a single system, one that I call Gaia, is essentially physiological. It is concerned with the working of the whole system, not with the separated parts of a planet divided arbitrarily into the biosphere, the atmosphere, the lithosphere, and the hydrosphere. These are not real divisions of the Earth, they are spheres of influence inhabited by academic scientists.

● We need planetary medicine. Its approach may be empirical, even at times unscientific, but it is all that we have. I am not proposing some kind of alternative science, the equivalent in medicine to acupuncture or homeopathy. But the mainstream of science has wandered too far from its natural course. I believe in science. My aim is merely to deflate the tumescence of macho big science and calm it down. How else would it listen to my case for planetary medicine? If scientists are to recognize the value of empiricism in the troubled times to come, they must first acknowledge the extent of their ignorance about the Earth.

● The smallest truly living thing is an *Aphrag-*



Healing Gaia

James Lovelock, 1991; 192 pp.

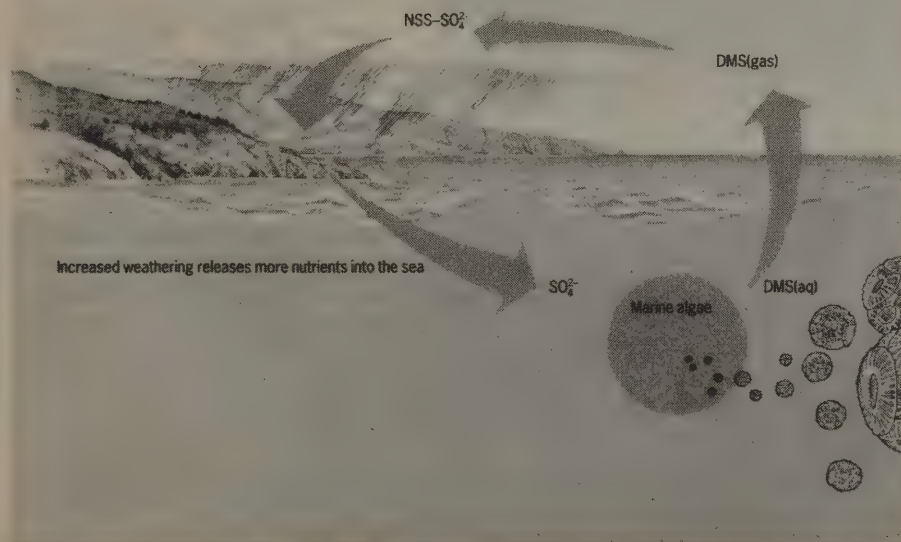
\$25 (\$27 postpaid) from Random House, Inc./Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000 (or Whole Earth Access)

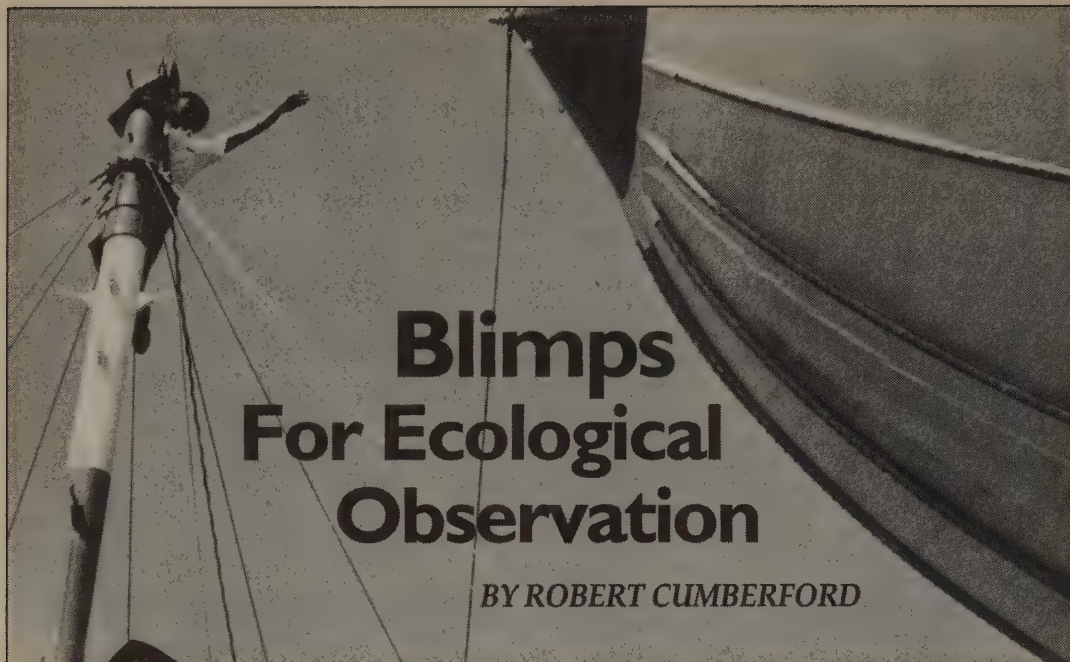
mabacterium, which is about one fifth of a micron in diameter. But what about viruses, which are even smaller? Aren't these alive? Perhaps, but I prefer to think of viruses as no more than pieces of the software of life. They are just a set of instructions expressed in the common genetic code and wrapped up in a convenient protein package. They are like computer floppy disks bearing a coded message. Neither the virus, nor the disk, is by itself alive. The disk needs a computer for its expression, and the virus a living cell. The viral "message" enters the cell and commandeers its functions, causing it to act out its instructions. With the virus there is always the message "Having done all this, make a copy of the entire set of instructions and pass it on". Mischievous hackers place similar "virus" messages on computer disks.

But neither the virus nor the disk can do anything by themselves.

The sulphur cycle

When marine algae die or are eaten, the sulphur betaine decomposes easily to yield the acrylic acid ion and dimethyl sulphide (DMS). Onshore breezes carry the dimethyl sulphide inland where atmospheric gases decompose it into a non-sea salt sulphate NSS-SO_4^2- aerosol comprised of sulphate and methane sulphonate. In this form sulphur is deposited on the ground, thereby enhancing the growth of land plants, and also increasing the rate of rock weathering. The increased flow of nutrients to the oceans is of obvious benefit to marine organisms, and so the sulphur cycle is perceived as mutually beneficial to both land- and sea-based ecosystems.





Blimps For Ecological Observation

BY ROBERT CUMBERFORD

Like a seaman of yore, a ground crewman shinnies up the mooring mast to release the airship by hand.

SEEING IS BELIEVING (SORT OF). Images of the whole Earth like those that gave rise to this magazine are wonderful, but they're distressingly deceptive, too: looking at the sparkling blue sphere floating in the void, you're struck by its ethereal beauty and have no notion of the true state of its surface; you see neither the glories nor the depredations of the works of man and nature, neither the human litter scattered across ocean and desert nor the trees uprooted and killed by sudden high winds or burned by lightning. The scale is wrong for human eyes.

Robert Cumberford is a vehicle designer, writer and sometime design teacher who has been concerned with ecological and economical issues related to human transport throughout his career. He insists that elements of hard technology (blimps, cars, airplanes, etc.) can and do have soft applications.
—Howard Rheingold



Design for a dry environment. Tile roofs preserved some Santa Barbara homes; wood shingles contributed to ash-piles alongside.

Last year I went for a blimp ride — not one of the gentle little fifteen-minute promenades offered to thousands of friends of Goodyear each year, but a real trip. I'd asked to ride along on a positioning flight; six months after I made the request, the Goodyear blimp *Columbia* left Gardena, California, on the first leg of its trip to the Goodwill Games in Seattle. I started the trip as an aviation enthusiast, but ended it thinking about ecology, precisely because seeing *is* believing. I now believe that we're doing more harm to the Earth than I'd thought before riding the gasbag for six hours.

An airship is perhaps the world's best observation platform. At a thousand feet above the terrain, you're able to see good distances, to relate place to region, but you can still see fine detail. Dogs and cats are identifiable as such. The speed, about 25 miles per hour, keeps you over an area long enough to take in more than just fleeting impressions. One of the most telling sights on our trip up the California coastline was the city of Santa Barbara, ravaged not long before by a ferocious brushfire that raced down canyons to the beach, destroying dwellings, animals and people indiscriminately . . . except for the few houses that had been properly designed and maintained for the environment in which they were built. Tile-roof houses



Tom Matus, pilot-in-charge, reads a map as the *Columbia* cruises serenely at 25mph.

with flammable plants kept well clear stood in splendid isolation on streets where every other building had been reduced to a pile of gray ash. If every home buyer could see that view, there would be a lot more concern for where houses are placed and how they are made.

There's a lot of activity in lighter-than-air craft right now, with wonderful new vehicles based on modern lightweight, high-performance materials popping up in all sorts of places. (A particularly nice project is for a solar-powered dirigible, which will be about as close to a perpetual-motion machine as we're likely to see.) This resurgence of interest in airships is the kind of thing that's cyclical, like solar heating. Back in the twenties and thirties, Germany offered reliable, high-cost airship service across the Atlantic, just as the British and French today offer reliable, high-cost supersonic flight from New York and Washington to London and Paris. The *Hindenburg* accident put an end to Zeppelin service.

I'd like to think that airships will come back, because we really need them now. If I were as rich as the Sultan of Brunei, I'd underwrite the renaissance of passenger-carrying airships, because only when the world's really fortunate people (i.e., those able to pay the fare for travel on a magnificent dirigible) see what is being done to the world so that they can remain rich will there be any tempering of the rape of Gaia.

I can imagine that this time around, huge, luxuriously outfitted dirigibles might cruise the continents, not cross oceans. A trip down the Pacific coast from Canada to Tierra del Fuego would reveal a great deal. The trip back up

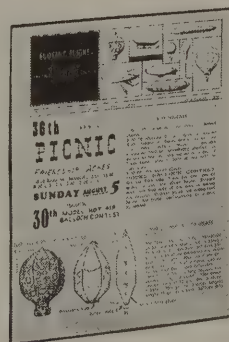
across the disappearing rainforests of the Amazon basin would show more. A cruise over the Sahel and down the center of Africa would show better than anything else how deforestation based on the collection of firewood for cooking is denuding the whole continent. Seeing slash-and-burn agriculture being

practiced might inspire a voyaging industrialist to imagine new implements affordable by the people on the ground. Just observing the highly populated countries of China and India is bound to engender new ideas on how to improve the lot of the people there without destroying even more of the natural environment.

In any case, a fleet of airships moving slowly above the Earth would expose hundreds of passengers to a view that would inspire them to think globally and act locally — almost certainly the pattern we must follow if we are to work our way out of today's ecological problems. We won't do it by "returning to the past" and eschewing technology, as some advocate. But some past technology — like direct-observation airships — could lead to new approaches that will help us keep the Earth healthy. ♦

The Lighter-Than-Air Society

This is where people meet to discuss aerostation — balloons, dirigibles, blimps, Zeppelins, and other buoyant airships. A lot of the emphasis is on history, but there is also an active, stalwart group that sees future airships as ecologically sensible, elegant transport. Membership gets you the bimonthly newsletter Buoyant Flight, book discounts and, of course, contact with others of like interest. —J. Baldwin [Suggested by B. Whipple]




Here's the newest from Airship International: Airship Shamu, after the trained whale at Sea World. It carries a night sign said to be the world's largest. The blimp is a Skyship 500 HL.

The Lighter-Than-Air Society

Membership \$15/year (includes 6 issues of *Buoyant Flight*) from The Lighter-Than-Air Society, 1800 Triplett Boulevard, Akron, OH 44306





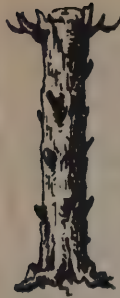
Negotiate To Win

BY JIM BRITELL

It's tough to play hardball when you don't even have a mitt. Influencing public policy is a game of rules, strategy, and skill. What follows is savvy advice for amateurs, gleaned from the struggles to preserve old-growth forests in the Pacific Northwest. It works just as well in places where no trees grow.

An earlier version of this article appeared in Forest Watch: The Citizen's Forestry Magazine (see p. 26). After twenty-five years with the Social Security Administration, Jim Britell moved to Oregon, joined the Audubon Society (Kalmiopsis Chapter), and now works full-time on environmental issues.

—Richard Nilsen



IN THE PACIFIC NORTHWEST, environmentalists are being asked more and more often to participate in planning timber sales that are worse and worse. Land management agencies are making concerted efforts to undercut opposition to unpopular logging plans by getting the public more involved in planning.

Agency managers have learned the value of the appearance of "public" approval and how easy it is to get. Timber-plagued politicians are learning, too, that negotiating groups are a media-friendly way to duck difficult decisions. Citizens' committees are regularly being enlisted to give benediction to the plans and schemes of land management agencies.

Environmentalists involved in these deliberations often have trouble figuring out their roles and how they can best influence ultimate outcomes. The only place David always wins against Goliath is in the Bible story. Too often, grassroots activists are emerging from advisory boards and work groups without even their slingshots intact.

It doesn't have to be so. A clearer understanding of the nature of these negotiations, and careful attention to principles and details, can cut the odds environmentalists face in negotiations with land management agencies and extractive industry.

The Myth of Planning

Quodcunque ostendis mihi sic,
incredulus odi.
(To all that which thou provest
me thus, I refuse to give cre-
dence, and hate.) —Horace

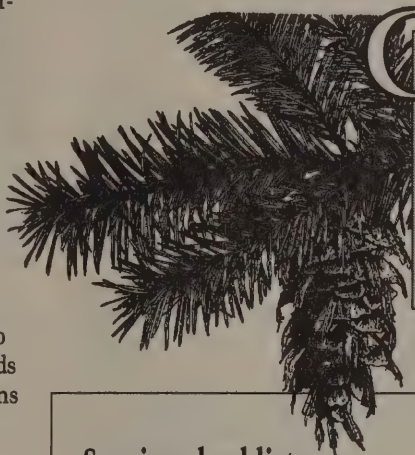
IN THEORY, forest planning is a rational sifting and evaluation of facts and observations, which produces possible courses of action that logically flow from the facts. In reality, most government planning is the systematic collection of evidence to justify predetermined conclusions. The important outcomes of most planning processes are decided before planning begins. Sometimes planners honestly do not know what the outcomes will be. You may be certain that their

supervisors — the real decision-makers — do.

The paradigm of government planning is to prepare planning projections for the future, then to treat those projections as orders. The Forest Service's forest plans, with their lists of possible sales and volumes, are one example of such planning projections. Whether a particular sale is possible cannot legally be determined until agency staff complete an environmental analysis of that timber sale. But rather than cancel or modify poorly conceived timber sales, foresters will manipulate their biological models and computer programs to support cutting. When you object during the planning process you are told that your concerns are premature; when you object to the implementa-

tion you are told that your objections are too late.

Activists often work from the mistaken premise that environmental information is gathered to help the agency decide if it should proceed with a course of action. *The information is gathered so the agency can proceed with what it intended to do all along.* Agencies seek your input not to act on it, but to document for the file the fact that they made an honest attempt to obtain it. Under present interpretation, environmental protection laws (especially the National Environmental Policy Act, or NEPA) require agencies to diligently gather and consider facts. The laws do not force an agency to take action that accords with the facts it has collected. From an agency's point of view, it is



Getting angry just makes you blind and ineffective. If you maintain their respect, adversaries on one issue may be allies on other issues.

Scoping checklist

- Formulate your arguments to establish a solid groundwork for the entire process, through to appeals and lawsuits.
- Identify key scientific information, analyses, and procedures you want considered; document these in written comments, preferably in the scoping phase, but later is okay too.
- Determine what you want in an ideal alternative and specify how you want this presented.
- Make sure "agreements" are concretely captured in a written alternative. No agreement is too obvious to be written down.
- Don't let the agency weasel out of including your alternative unless they can *prove* to you that it would be illegal.
- Don't let the agency force you to spoon-feed them your alternative in elaborate detail — that's their job. If they have to work through it, they'll retain some degree of "ownership" over that alternative.
- Don't let the agency make your alternative into something other than what you originally intended. This is worse than not including it at all, and will make it tougher to appeal.

perfectly logical to aggressively seek your input, then just as aggressively ignore it. Planners must collect environmental information before they can legally offer timber sales — but if they acted on the information they collect, they would often have to abandon the sales. This causes a lot of confusion: at early stages in the process it may produce a genuine interest in soliciting input, and at a later stage a genuine attempt to ignore it. When the same agency people are involved it can be disconcerting, and lead to bad feelings.

Be alert for “negotiations” which just run out the clock. By the time you realize your efforts are futile, you may have wasted the time you could have used to mobilize public opinion.



(Mis)communications

IT IS ESSENTIAL to remember that, for the purposes of agency decision-making, only paper records exist. Meeting minutes are not just a record of what happened; they are what happened. Environmentalists in negotiations must monitor, build, and use these paper trails to lead the agency off its destructive course.

Agencies classify public reaction in two categories: “yes” and “maybe.” Even vigorous objections will be classified as “maybe,” and then likely passed up the line as something like “We may have some local opposition to some parts of the project, but we are working closely with our partners to insure cooperation.” The mere fact that an environmentalist sits in a meeting and observes presentations by agency staffers will be recorded in agency records as concurrence. Nonresponse is as good as a positive and enthusiastic “yes.” Silence is endorsement. Agencies also seem to treat objections as a wasting liability: if objectors are not heard from for sixty days or so, staff will often assume those objections to have been abandoned.

Of course, it is possible to press so hard, and have points so overwhelming, that the logic of protecting an area is inescapable. Even then, an agency will not take “no” for an answer: rather, it will shift from an institutional argument to a personal one. Environmentalists are often accused of upsetting agency personnel, of “destroying” long-standing productive relationships by “confrontational behavior.”

Never give up the high ground. You have the right to be treated in a businesslike and professional manner. Do your best to avoid personalizing issues, but if people begin referring to you as a “preservationist,” find ways to put “devastationist” in the same sentence with that word. Avoid finger-pointing, but immediately rebut and counter-label without being aggressive. It is possible, and important, to be firm and yet friendly.

There are practical reasons for this. No one can listen to what you are saying if you are being insulting. Getting angry just makes you blind and ineffective. If you maintain their respect, adversaries on one issue may be allies on other issues. My Audubon Society chapter has several current projects where agency timber managers are our allies on non-timber issues; similarly, we have adversaries on land-use issues who are allies on fishing issues.

One part of holding the high ground is refusing to use the doublespeak that agencies have evolved to avoid acknowledging the reality of their actions. Agencies may think they own the land, but they certainly do not own the language. You have as much right to name things as they do. Always use correct words and object to phrases like “managed areas” when

Identification & analysis of alternatives

- Ask to have a representative sit in on ID team meetings to monitor proceedings.
- It is okay to meet with the ID team, but write your own letter summarizing the proceedings and agreements as you understand them. Submit this to the decisionmaker and request a written response if your version of events is not the same as the agency’s. Ask for your minutes to be included in the record. Submit it yourself when the draft environmental-impact statement is opened for comments.
- You have a right to the supporting analysis behind EISs and assessments. The various resource disciplines (i.e., geology, hydrology, etc.) often prepare elaborate studies to support planning conclusions. These are public records.
- Insist that all documentation in process records be dated and signed by authors.
- Avoid offering explicit counter-proposals to bad timber sales.

Decision, appeals, & negotiations

- Get a detailed *written* rationale for the rejection of your alternative.
- Check “process records” carefully to insure that everything the agency said is there actually is. Look for material the agency failed to mention in its analysis and decision (e.g., “minority opinions” among its own personnel). If it is important, ask why the information was not divulged in the document.
- Written documentation is all that counts in court. (Yours too.)
- Anything that hints of obfuscation should be investigated.

the proper expression is "deforested areas." This can provide a fertile field for humor.

Who Really Makes The Decision?

CITIZENS' WORK GROUPS are, almost without exception, negotiating sessions of a peculiar type: they are "negotiations with agents with limited authority." Negotiations of this kind present the problem that if you make concessions they are gone forever, but any gains you make can be overturned by higher authorities. Sometimes past concessions must be renegotiated with new managers. I have seen plans that activists were talked into by one agency manager denounced by his successor as ridiculous.

Most meetings and "negotiations" merely furnish "talking points" for local staff to use at their discretion, when (and if) they meet with the real decisionmakers, who are seldom seen by local activists. Very often even the most serious concerns and evidence are not passed along to decisionmakers.

Some negotiations are outright shams. There are giveaways to these. Often you will be told that the project is "merely implementing the Forest Plan." Rangers will be very evasive if you ask about the possibility of adopting a "no change" alternative, no matter what the scoping shows. Shams will produce quotes like, "We know we shouldn't be going into that area and doing any logging but if we came up with a plan that said that, our bosses would never buy it. The plan calls for a volume in that area and we can't disregard it."

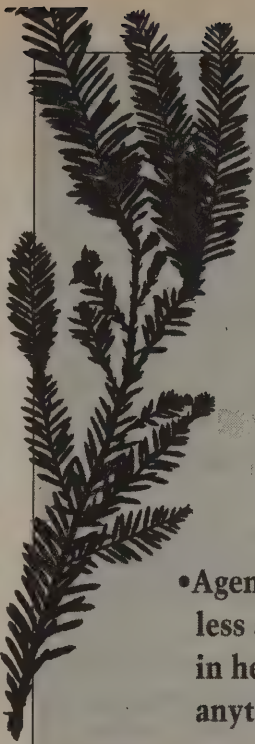
Be alert for "negotiations" which just run out the clock. By the time you realize your efforts are futile, you may have wasted the time you could have used to mobilize public opinion.

A Captive Audience

"We are not always willing to extricate ourselves from a position whose absurdity has become clear to us."

—Thomas Nagel

WHEN PLACED in a roomful of bureaucrats, most citizens, many environ-



Remember

When you deal with the government:

- The paper says what the paper says.
 - The paper means what the paper says.
 - Unrecorded verbal agreements have a half-life of three months.
 - No agreement is final until it is reduced to writing.
 - Verbal agreements don't modify written documents.
 - Rangers' memories are not agreement repositories.
 - Rangers and supervisors may have no knowledge of (and less interest in) verbal agreements made by their predecessors.
- Agencies are willing to give activists an endless supply of elk-viewing areas, maps, rides in helicopters, new trails and schmoozing: anything and everything except trees.

mentalists, and some activists will identify with the bureaucrats (the "Stockholm Hostage" or "Patty Hearst" syndrome). Most people find it very difficult to say "no" to a representative of the government, especially ones in uniform who say they're just following Congress's orders. Just as people sometimes quietly choke to death in restaurants rather than draw attention to themselves, environmentalists will sometimes smother their objections rather than disturb comity. Agencies take advantage of this fact.

Controlling interactive group processes, managing interorganizational conflict, and using formal planning processes to further predeveloped policy agendas are subjects taught in graduate schools of labor law, business, and public administration. Managing formal interactions of people with conflicting goals is as much a discipline as biology or forestry. While activists have been studying ecology, our agency friends have been learning the art of manipulation by planning and negotiation.

Professional negotiators and mediators use coaching and videotaping to train agency managers in negotiation. In many cases, managers will retain professionals to advise them in their

dealings with activists. These people — often called facilitators — are paid to help the agency prevail. Through processes too complex to relate here, managers or facilitators choreograph meetings so that peer-group pressure smothers substance. Even people who strongly disapprove of deforestation are often carried along into acquiescing to things they know are wrong.

Manipulation of citizens' committees begins with the selection of participants. Public processes are often used to bring pro-timber "publics" to the table early in the process, to give logging schemes the appearance of "middle ground." In promoting local boards, agencies usually claim to have included members from the "public," the industry and the environmental community. But in the rural Northwest, asking local people if the timber industry should cut down trees is like asking a dog if his owner should get free steaks. Whether it's Georgia in 1850, West Virginia in 1940, or Oregon in 1990, extractive industry usually owns the locals. It is said that when the Grand Canyon dam was being considered, every elected politician at the town, county, state and federal level, and all the Chambers of Commerce in Utah and Arizona were

While activists have been studying ecology, our agency friends have been learning the art of manipulation by planning and negotiation.

DO:

- Arrive at meetings early to size up the space. Arrange chairs so you have enough elbow room.
- Sit where you can keep eye contact with your friends.
- Go outside and breathe fresh air at every break.
- Urinate at every break; it's distracting to get up in the middle of the meeting to go to the bathroom.
- Talk to the "opposition" before and after meetings and during breaks. This gives you a good chance to size them up. Often you can find out more about a person's positions during a break than in several days of meetings.
- Insist on formal minutes at every meeting, signed by both parties.
- Insist that agencies begin meetings by disclosing specifically what they intend to do. They may resist this with some vigor. Agencies love to waste meeting time in foreplay only to disclose their true plans in the meeting's final hours.
- Pin down who the deciding official is, and insist that he or she be present at any local meetings. If, in fact, the District Ranger is not going to be making the final decision, why waste your time talking to him? Insist that higher-level officials be present at any local meetings if they will make the final decisions.
- Collect everything! Use the process to collect information that would otherwise not be easily available. Often in the course of deliberations the agency will provide maps, spreadsheets and other data. These should be collected. I know of several instances where these informal documents became the basis of lawsuits.
- Use the process to introduce into the record scientific information that will serve future appeals.
- Privately ask agency personnel if they think the agency approach is sound. If they say "no," ask for specifics. Many employees will tell you where the bodies are buried, but they'll only do so if you ask. Once I stayed in a meeting room to read a stack of timber sale files while everyone else went to lunch. An agency planner was eating in the same room. I began asking him questions about a particular sale. Finally he said, "Look, there's nothing wrong with that sale." I pushed the stack towards him and said, "Well then, show me the ones that have problems." He did.

for the dam. Where public forests are at stake, people in the pool of prominent citizens who would logically be selected for boards often have a direct financial interest in a high cut level because it creates such a flow of funds through the community.

When the Forest Service established timber advisory boards for Northwest forests in 1989, forest activists were seldom chosen as members because they were thought to be too partisan. However, local timber-company owners and others with a direct financial interest in board recommendations were selected. Since these boards often limited public testimony, activists could only sit helplessly by and watch while the government's hand-picked "environmental" representatives gave the store away. I know of instances where agency managers — and in one case the timber industry — contacted activists and asked them to rein in the timber-cutting enthusiasm of board members selected to represent the environmental community. This danger alone can induce activists to take part in processes they'd rather avoid, out of fear that if they don't do it, some "reasonable environmentalist" will.

If your group is excluded from a critical negotiation, and you can't stiffen the spine of the "environmental" negotiators, make sure all involved know that they do not represent your

DON'T:

- ... eat any pastries or sweets; sugar at 9:00, spacy at 10:00.
Eat a light lunch.
- ... sit facing windows.
- ... drink too much coffee; you will get too wired.
- ... let the agency take up the whole time talking and presenting, or do the same yourself.
- ... expect scientists to be argumentative in meetings with other scientists; professional courtesy often restrains them. Scientists and professionals often do their best work in writing.
- ... bring people to meetings who can't say no, or take yes for an answer. To represent a point of view in an argument, you need to know both what you want and how to make sure the other side understands your position. You can be empathetic with your adversaries, but they must know exactly what you want.
- ... get too friendly with agency staff and their families. This will only cause you problems. Staff are paid representatives of their organizations and if you forget it you will be disappointed.

views. Like everything else, put it in writing, and get an acknowledgement of your complaint from the agency. Tell your story. Present your position through the media whenever you can.

So Why Negotiate?

PUBLIC INPUT is probably best thought of as a kind of praying: few people would call it entirely useless.

Of course, negotiations are sometimes impossible to avoid. Because you often can't sue until you exhaust administrative remedies, you often can't stop a bad project without participating in the process — though you can't stop the project by participating, either, and you run the risk of being manipulated into agreeing to let it proceed.

At best, negotiations present opportunities to build administrative records that agencies and judges cannot ignore. Some negotiations make available internal agency documentation which would otherwise be very difficult to obtain, and which can become the basis for lawsuits.

Staying On Track

NEGOTIATING HAS TWO components: influencing what things people think about, and influencing how they think about those things.

It is important to enter negotiations with the proper frame of mind. I generally try to assume that the deforestation agencies are made up of well-intentioned people who love the environment and abhor deforestation, but have succumbed to a form of group mental illness. I respect agency staff as individuals but view their collective activities as a form of highly organized juvenile delinquency.

Local managers are often fine people for whom we have a high regard, and they often believe that if they were not there making "least-worst" decisions, others would come and make really terrible decisions. They tell us that they are forced to enter roadless areas which they would prefer not to enter. Agency staff may feel forced to make environmentally bad decisions, but environmentalists are not obliged to become complicit in those deci-



Never trade a place you know for one you don't. That's how Glen Canyon Dam got built.

sions. In fact, we are obligated to resist them. As Andy Kerr of the Oregon Natural Resources Council is fond of saying, we are there to "stop them before they kill again."

Land management agencies have become addicted to deforestation. The only effective way to deal with an addict is "tough love," not "idiot compassion." Agency managers do need help, but they have to get it by organizing themselves through organizations like AFSEEE (Association of Forest Service Employees for Environmental Ethics; see p. 25).

Set the proper framework for negotiations by reading from any of a number of recent legal decisions, magazine articles and congressional hearings, which document what Judge William Dwyer called in a recent decision "a deliberate and systematic refusal by the Forest Service and the FWS to comply with the laws protecting wildlife."*

You may be asked if you would like to substitute cutting in one place for cutting in another. Avoid offering explicit counterproposals to bad timber sales. We are not in the business of putting up timber sales. Activists have enough problems without internalizing the responsibility of meeting timber quotas which shouldn't be met in the first place. Never trade a place you know for one you don't. That's how the Glen Canyon Dam got built. Firmly decline any offers to help hold the chainsaws. You will be asked.

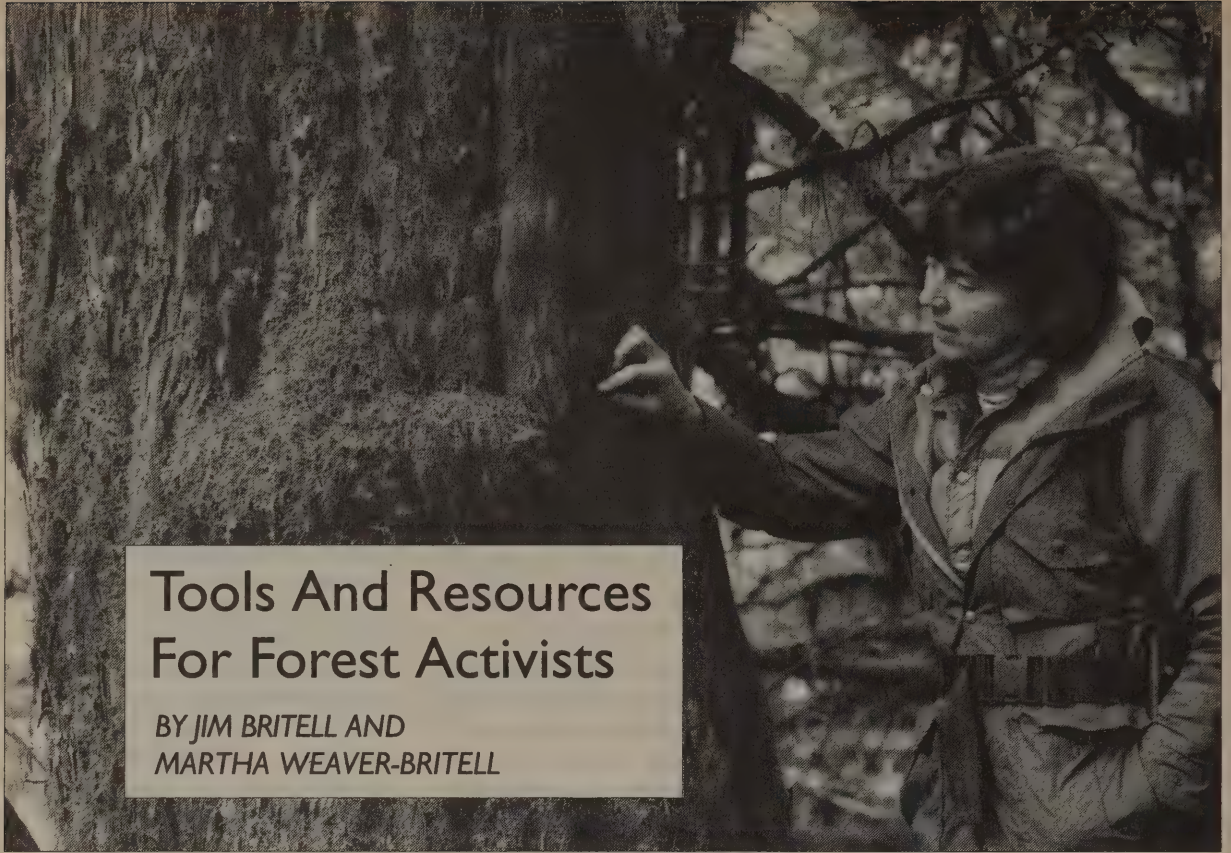
The most important thing to remember in attending meetings with agencies is that you may often find yourself alone in a sea of hostile

people, who may believe, and even say, that you are an "enemy of the people" — particularly of working people and their jobs. The rural Northwest is possessed by a trickle-down theory which holds that if the big timber companies ever stop clearcutting it will mean the end of the American family as we know it. Try to have a support group you can talk to when times get tough. If you are in this business and are not receiving abuse, you probably aren't being very effective. Effective activists can cost timber corporations millions of dollars a year apiece.

A dangerous sign of effectiveness is conflicts between activists and the boards of directors or other officers of their group, following contacts by agency personnel with those officers. *It is essential that negotiators and their boards foil any attempt to drive wedges.* This point cannot be stressed too strongly. Officers of environmental organizations who have members in difficult negotiations with an agency must be very careful in their dealings with that agency, particularly since most of our organizations are open, and we may even have agency personnel on our boards of directors. Our Audubon chapter is actively involved in land use, wetlands and fishing issues; our Ancient Forest activism is probably the least controversial thing we do. Our president, Ellen Warring, has told our board members that they should expect to receive personal criticism for the chapter's activities and that if they are uncomfortable with this they should resign.

Imaginary trees and birds may survive and flourish in the speculative habitats of computer models and fancy plans. Living things must survive in a real world. It's our job to see that they can. Remember that no matter what situation you find yourself in, trees and fish can't go to meetings and conferences to speak for themselves. They have selected you to go for them because they know you can do it. ♦

* To obtain a copy of the Dwyer decision, write U. S. District Court, 502 U. S. Courthouse, Seattle, WA 98104 and ask for a copy of *Seattle Audubon Society v. Evans*, dated 5/23/91.



Tools And Resources For Forest Activists

BY JIM BRITELL AND
MARTHA WEAVER-BRITELL

Tryg-Sky

◆ **LOGGING PROPOSALS ON PUBLIC lands** are political decisions that can often be reversed if you are determined and get to them while the trees are still standing. To stop a local timber sale, get in touch with your local forest activists. Most of the 500 Audubon Society chapters will have a conservation chairperson who can help. To find your local chapter, write:

National Audubon Society
Western Regional Office, 555 Audubon
Place, Sacramento, CA 95825

To locate other forest activist groups —

California:

Western Ancient Forest Campaign
Northcoast Environmental Center
879 9th Street
Arcata, CA 95521

Washington:

Western Ancient Forest Campaign
7207 Lakewood Road
Stanwood, WA 98292

Oregon:

Western Ancient Forest Campaign
Headwaters
P. O. Box 729
Ashland, OR 97520

Outside the Northwest:

Save America's Forests

4 Library Court SE
Washington, DC 20003

Forest Reform Network

5934 Royal Lane #223
Dallas, TX 75230

◆ The Northwest Forest Photo Library contains over 4,000 aerial and ground photographs of public and private forests of the Pacific Northwest, documenting damage from logging as well as some of the limited remaining old growth. Each picture is indexed on a computerized database. [This is the source of the photographs illustrating the previous article, and of many used in *If you think our National Forests look like this . . .*] For information, send SASE to:

Tryg-Sky

3700 NW Columbia, Portland, OR 97229

◆ **Forests in Distress** is a reprint of a special six-day investigative series that marked a turning point in the battle to save Northwest forests. Documents the overcutting that has taken place in the Northwest forests, and its effects on the streams, soil, fish and wildlife of the area.

Forests in Distress

1990; 28 pp.

\$1.35 from The Oregonian,
1320 SW Broadway, Portland, OR 97201
attn. Back Copies

■ In the Northwest, the timber industry is running out of places to cut.

The old growth is gone from private lands and carved up or locked up on federal lands, and most second-growth forests planted in the 1950s won't be ready to harvest for 20 to 30 years.

Over the years, logging practices have contributed to declining fish runs, massive landslides, severe forest fragmentation and ruined streams. Many wildlife species — not just the northern spotted owl — are losing ground.

◆ Yes, as a citizen you can stop a timber sale — if you know how. **How to Appeal Forest Service Decisions** gives step-by-step directions for appealing a U.S. Forest Service management decision. It includes the steps to be taken even before a decision is issued by the Forest Service, and provides all the basic information about the appeal process including a description of the documents that are a part of the process. This

(Left) Mary Vogel of Ancient Forest Adventures inspects the bark of a 600-year-old yew tree, Stoddard Grove, Willamette National Forest. Access to this forest, guide services, and yew trees appear on pp. 28-29.

book is one of a series of excellently researched publications produced by The Wilderness Society.

How to Appeal Forest Service Decisions

H. Michael Anderson, 1989; 66 pp.

\$4 postpaid from The Wilderness Society, 610 SW Alder #915, Portland, OR 97205; 503/148-0452

■ *Stay Pending Appeal.* It is possible to request a stay — that is, a delay — of the activities under appeal while the appeal is pending. In many appeals, a stay is vital; without a stay, the appeal may be useless. For example, if the challenged action is a timber sale, you may have to obtain a stay to prevent the timber sale from going forward while the appeal is being heard. Once a timber sale is under contract, it is very unlikely that the Forest Service will stop the sale, absent a court order.

◆ As justification for below-cost timber sales, the Forest Service often claims benefits such as water enhancement, protection from fire and pests, and increased biological diversity. Creative accounting methods are also used to obscure the actual costs of clearcutting. This booklet rebuts such claims, and serves as a useful guide for those who seek to stop timber sales.

The Uncounted Costs of Logging

Richard E. Rice, 1989; 90 pp.

\$6 postpaid from The Wilderness Society, 610 SW Alder #915, Portland, OR 97205; 503/148-0452

■ Trimble (1965) compared the effects of two different cutting regimes on cove hardwood forests in West Virginia, a forest type unique to the southern Appalachian Mountains and one of the most diverse outside of the tropics. Stands produced by clearcutting contained a high proportion of species adapted to large forest openings (e.g., tulip poplar, northern red oak, and black cherry). In contrast, less than half as many species adapted to large forest openings were found in stands where trees were harvested individually. The predominant trees in these stands were shade-tolerant species such as sugar maple and American beech.

◆ This is the single best visual introduction to the plight of the Northwest's ancient forests. A few minutes spent turn-



Over 200 vertebrate species (and countless invertebrates) need ancient forests to survive. (Above) Northwestern salamander; (Right) Red Tree vole.

ing the pages of this booklet is like a tour of the best and worst of the forests — wonderful images of the remaining ancient forests, and appalling examples of clearcuts and plantations.

If you think our National Forests look like this . . .

1991; 40 pp.

\$5 postpaid from The Wilderness Society, 610 SW Alder #915, Portland, OR 97205; 503/148-0452

◆ This newsletter for grassroots forest activists provides information about Forest Service lands throughout the country — congressional bills relating to forest issues, relevant court decisions, and more. The same people organize a yearly powwow that brings together forest activists from around the country.

Forest Reform Network

Edward C. Fritz, Coordinator.

\$10/year (4 issues) from Forest Reform Network, 5934 Royal Lane #223, Dallas, TX 75230; 214/352-8370

■ The Forest Service persisted in patch-clearcutting the old re-growth oak/hickory/maple Fairview 611-acre forest in Shawnee National Forest in spite of these omens:

— widespread opposition of citizens in Illinois to devastating one of the last three unprotected hundred-year-old stands.

— provision in 1990 congressional appropriations bill against clearcutting in the Shawnee.

— letter from 22 Illinois congresspersons and senators asking Forest Service to hold up the logging.



If you think our National Forests look like this . . .

◆ One of the most remarkable developments in the history of public administration has been the emergence of this organization of federal employees actively and publicly working to change the policies of their own organization.

Inner Voice

(Newsletter of the Association of Forest Service Employees for Environmental Ethics)

Cheri Brooks, Editor.

\$20/year (6 issues) from AFSEEE, P. O. Box 11615, Eugene, OR 97440; 503/484-2692

■ A chilling event has occurred in the Northern Rockies (Region I of the Forest Service) — the firing of Region I Forester John Mumma. This very moderate reformer was pressured into resigning in early September [1991]. Early reports indicate that John was confronted by Forest Service Chief F. Dale Robertson and hardline Associate Chief, George Leonard, at a ten minute meeting in the Denver airport. He was reportedly given the choice of retirement or a directed reassignment to Washington, DC. As a matter of principle and a choice of conscience, John chose to resign.

The coup in Region I has national significance. It may have nipped in the bud reformers in the region who are among the most highly placed, most vocal in the For-

est Service. All reformers will now fear for their jobs. Not since Gifford Pinchot was fired by the Taft Administration in 1909 has such a blatant, politically-motivated act been levied against a FS career professional in a high-level position.

◆ *This diverse, eclectic journal is often overlooked by mainstream activists. It provides good coverage of current environmental issues, and information about environmental campaigns and actions worldwide that you won't find in the mainstream publications. This is worth reading just for the letters to the editor ("Dear shit fer brains" is the accepted form of address), which reflect more diverse opinions than most groups can tolerate.*

Earth First!

\$20/year (8 issues) from Earth First!, Box 5176, Missoula, MT 59806

● On Friday, August 23, five trees were felled with tree sitting platforms attached before Earth First!ers could occupy them in the Fairview Timber Sale area of the Shawnee National Forest in southern Illinois. Then all hell broke loose in a most disgusting manner.

Chris van Daalen, co-founder of Save America's Forests, claimed he was run over by Brian Unnerstal, the main timber buyer for East Perry Lumber Company of Frohna, Missouri, when van Daalen attempted to blockade the pickup truck Unnerstal was driving on Monday, August 26. van Daalen suffered a broken hand and bruised ribs. Tire tracks are still visible across his chest. He was treated at a local hospital and released into the custody of Forest Service special agents. East Perry Lumber Co. has denied that the incident occurred, however, and the Forest Service agents and police have refused to arrest Unnerstal.

◆ *The newsletter of the Northcoast Environmental Center features ecological news from California's northern coast. Covers a broad range of issues, including forests.*

ECONEWS

\$18/year (12 issues) from Northcoast Environmental Center, 879 9th Street, Arcata, CA 95521; 707/822-6918

● Some events in the first few weeks of September show why it's such an uphill struggle to protect "our" national forests.

Over Labor Day weekend, Siskiyou County school superintendent Frank Tallerico told a yellow-ribbon rally he wanted more timber cutting. Tallerico, well-salaried, has an assistant who lobbies to keep timber cuts high. That's because Klamath National Forest gives the county one-quarter of its re-



Earth First!

ceipts from timber sales — and that could mean \$8 million in some years for the county of 40,000 people.

On September 14, timber industry supporters hit a Target supermarket — filling shopping carts and then leaving them in the aisles — to protest a publication called "Kids for Saving Earth" published by the store chain. Their complaint? It printed a letter from a 12-year-old girl bemoaning that the ancient forests "are being torn down daily, and our government is letting it go by."

◆ *Forest Voice, a tabloid-size publication with stunning graphics, takes the position that all remaining native forests must remain unlogged, and environmentally sound forestry must be practiced on those lands already in the timber base. Promotes passage of the Native Forest Protection Act, one of several proposed legislative solutions to the sorry state of America's forests.*

Forest Voice

Tim Hermach, Deborah Otuno and W. Victor Rezac, Editors.

\$25/year (4 issues) from Native Forest Council, P. O. Box 2171, Eugene, OR 97402; 503/688-2600

◆ *An indispensable tool for activists appealing timber sales and forest plans. Founded by controversial forest economist Randal O'Toole. Analyzes the technical failures of Forest Service planning.*

Forest Watch

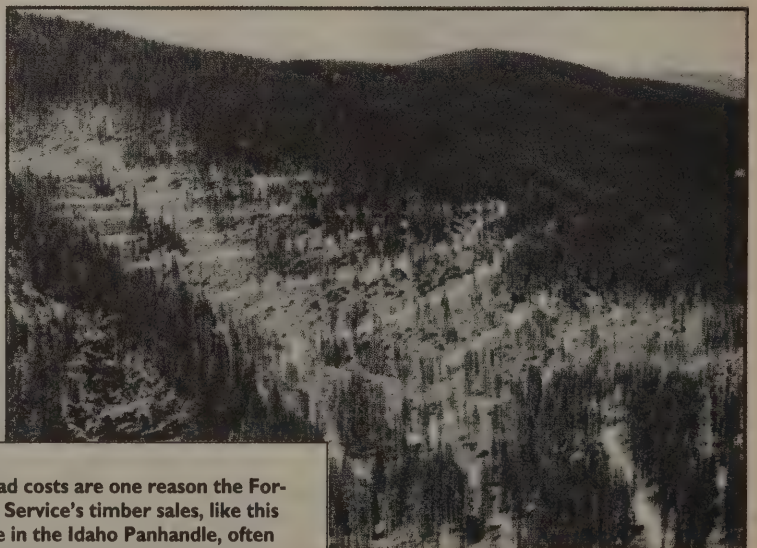
Jeffrey St. Clair, Editor.

\$21.95/year (11 issues) from Cascade Holistic Economic Consultants, 14417 SE Laurie Avenue, Oak Grove, OR 97267; 503/652-7049

◆ *Published by a coalition of over 100 grassroots environmental organizations, this newsletter focuses on legislative remedies to America's forest problems. Save America's Forests Coalition is a rapidly growing and aggressive organization with strong ties to collegiate environmental organizations, and has its own Washington lobbyists.*

Save America's Forests DC Update

\$25/year; free to members (the only requirement for membership is that you pledge to phone, write or visit your members of Congress and tell them to save America's forests) from Save America's Forests, 4 Library Court SE, Washington, DC 20003; 202/544-9219



Road costs are one reason the Forest Service's timber sales, like this one in the Idaho Panhandle, often lose money. Forest Service photo.

Forest Watch



Virgin Forests 1620



Virgin Forests 1850



Virgin Forests 1989

Forest Voice

● The first 200 years of country have seen mighty struggles to guarantee freedom and rights for all humans, regardless of age, gender or race. Hundreds of thousands of Americans died in the Civil War to end slavery and preserve the Union. The struggle now is now for the very existence of the living systems of our continent.

Where is the commitment to this cause? If Americans do not rouse themselves from their TV induced stupor, then America's glorious natural ecosystems will become a memory and then a fable.

Even as the chainsaws and bulldozers are wiping away millions of years of forest biodiversity, it is not too late to stop the destruction and begin the process of ecosystem restoration. But we will not succeed unless a critical mass of aware and concerned citizens take the step of contacting Congress in person.



Forest Voice

◆ This quarterly is published by the Public Forestry Foundation, a group of professional foresters who provide technical forestry information in a format accessible to activists and concerned citizens. These people are experienced foresters who believe in sustainable forestry on public lands. They conduct low-cost workshops and provide consulting services for forest activists.

The Public Forester

Roy Keene, Editor.

Free (4 issues/year) from Public Forestry Foundation
P. O. Box 371, Eugene, OR 97440

● An estimate of the productive capacity of a

unique forest area is called the site index. Site index is usually calculated separately for every tree species. The most commonly used index in the Pacific Northwest is the 100-year index for Douglas-fir.

An index of 140 means that a specific area will enable a Douglas-fir to grow 140 feet tall in 100 years. Foresters choose to use the rate of height growth as an indicator of site quality because, unlike other stand characteristics such as tree diameter, height growth in DF stands is relatively unaffected by the number of trees per acre (density).

◆ *The journal of the Inland Empire Public Lands Council has original articles and reprints from a wide variety of Northwest periodicals. Emphasis is on sustainable forests, diversified economies, and conservation of natural resources in the Columbia River Basin, the major river drainage in the Northwest.*

Transitions

John Osborn, Coordinator

\$17.50/year (12 issues) from Inland Empire Public Lands Council, P. O. Box 2174, Spokane, WA 99210; 509/327-1699

■ Railroads and forest conservation are central to the debate over Northwest forests. The history of the Northwest forest debate begins when the western states were still territories, in 1864. In 1864 Congress gave 40 million acres to the Northern Pacific Company for building a railroad (now Burlington Northern). In Section 20 of the Northern Pacific Grant, Congress reserved for itself the right at any time to "add to, alter, amend, or repeal" the act. Today the Northwest's two largest timber companies, Plum Creek and Weyerhaeuser, control about 3 million acres of these railroad grant forests — and export logs.

◆ *This journal of conservation biology and biodiversity offers in-depth essays, technical articles, proposals for regional preserves, poetry, book reviews, and drawings, all oriented toward the preservation and return of true wilderness.*

Wild Earth

John Davis, Editor.

\$20/year (4 issues) from Wild Earth,
P. O. Box 492, Canton, NY 13617

■ To the extent that a species depends on the conditions of wilderness, reductions in roadless area in a region predispose it to extinction. Wolves, Grizzly Bears, and to a lesser extent, Cougars, are among the species that may show wilderness dependency, primarily because they are shot or otherwise harassed in areas with high road density (e.g., Thiel 1985). A report by the Congressional Research Service on inter-agency management of the Greater Yellowstone Ecosystem concluded that road construction is the single greatest threat to the regional ecosystem (Keiter 1989). Because a large wilderness area with a natural disturbance regime will maintain vulnerable species in addition to less sensitive species, the total native diversity of wilderness is expected to be higher than that of a roaded landscape of comparable size. Total species diversity may be higher in the roaded landscape, but many of those species will be exotics or other opportunists that were not a part of the primeval landscape and do not require protected areas for survival.

◆ *The journal of the Oregon Natural Resources Council (an umbrella organization of 50 Oregon environmental organizations) covers all environmental issues in the state, with an emphasis on ancient forests.*

Wild Oregon

Mark Sigel, Editor.

\$25/year (4 issues) from Oregon Natural Resources Council, 522 SW 5th Street/Suite 1050, Portland, OR 97204; 503/223-9001

■ There are three major constituencies opposing ancient forest legislation: the timber industry, organized labor and local governments who are addicted to timber revenues. All three testified at the April hearing. All opposed protective legislation. While labor and local governments strongly opposed forest protection, they did offer suggestions as to other legislative actions that could mitigate their concerns. Only the timber lobbyists (and their puppets masquerading as grassroots citizens) were still in deep denial. The timber beasts kept saying that spotted owls don't need old growth forest — the Congressional representatives are no longer swallowing this line. ☹

The Natural History of Puget Sound Country



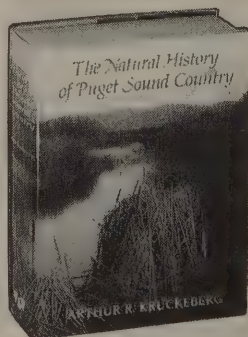
Bob and Ira Spring

Tree trunks and limbs often carry a luxuriant load of epiphytes, mostly mosses and licorice fern.

Many natural histories are aimed at an audience already in possession of dog-eared field guides and well-worn hiking boots. This one casts a wider net, with a text that is both accessible and scholarly. Stunning black-and-white photographs, beautiful illustrations and intelligent captioning let this volume work equally well as a browse or a read. The Puget Sound watershed now has a lavish book worthy of its great diversity and beauty. —Richard Nilsen
[Suggested by Jean Stam]

• Dense crops of eelgrass, swaying in subtidal waters like wheat rippling in the wind, are at home on muddy bottoms in the lower intertidal and subtidal zones of Puget Sound. One should not read too much into the common name, eelgrass. Known to the botanical world as *Zostera marina*, this salt-water "pasture" plant is only distant kin to the cereal grains, the grasses. But it is a closer relative to grasses than to kelp. In the classification of the plant world, kelps and other seaweeds are members of the loose confederation called algae. Though incredibly varied in body form and mode of reproduction, no algae produce flowers or seed. This is just what one would expect if the green way of life began in the sea: plants with primitive modes of propagating

themselves persisting as the descendents of ancient marine life. It is unexpected then, to find a plant like eelgrass with flowers and seeds making a success of life in the seas. After all, seed plants evolved on land. Like whales and other marine mammals, eelgrass has taken its heritage of structure and function for terrestrial life and adapted it to life in the sea.



The Natural History of Puget Sound Country
Arthur R. Kruckeberg, 1991; 488 pp.
\$40 (\$43 postpaid) from University of Washington Press/Order Dept.
P. O. Box 50096, Seattle, WA 98145;
800/441-4115

Access to Oregon Old-Growth Forest

Vacation touring along the interstate carries the risk of being flushed to your destination. Here are three ways to learn where and how to get off the Big Road and poke around, should you decide to do your bit to help Oregon's declining timber-extraction economy as it reorients toward sustainable activities like tourism.

A Walking Guide to Oregon's Ancient Forests provides statewide coverage to more than 200 old-growth groves. Tuck it in your pack and you will know what exit to take to see big trees, from conifers to cottonwoods. The maps here are only of generalized road-atlas quality, so NF maps or their equivalent will be a useful addition.

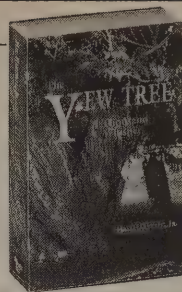
For central Oregon's Willamette National Forest — a large forest with a lot of old growth still on it — a better map already exists. **50 Old-Growth Day**

The Yew Tree

The yew tree arose as a genus roughly 250 million years ago, in the age of the dinosaur, and is one of the most ancient trees on the planet. It was sacred to the matriarchal goddess cultures, and served as the literal church for the Druids. As an instrument of war, of healing, and of spirituality the yew always stood on the cusp between life and death. With the recent discovery of the "miracle" anti-

cancer compound taxol in its needles and bark, the tree continues its ethnobotanically troublesome pattern.

For the past 18 years, tree-planter Hal Hartzell has collected myths, legends, poetry, paleo- and ethnobotany of the yew. It's all here, together with a close analysis of the current dilemmas, in fine prose. —David Schneider



The Yew Tree

Hal Hartzell, Jr., 1991; 319 pp.

\$19.95 (\$21.95 postpaid) from HuloGosi Communications, Inc., P. O. Box 1188, Eugene, OR 97440 (or Whole Earth Access)

• Dr. Cragg of the National Cancer Institute appraises taxol's prospects: "... There have been a lot of attempts to synthesize the drug... Personally, I don't foresee a viable synthesis being developed in the near future. It's a very complex molecule."

Dr. Samuel Broder, director of the NCI, was quoted in the *New York Times* as saying that taxol is, "the most important new drug we have had in cancer for 15 years."

■ The average amount of taxol required to treat one patient is two grams. It would require the bark of ten large trees to produce enough taxol to treat one patient.



Stripped yew logs.

Hikes charts about 300 miles of trail, all hiked by the authors. The Willamette has more old-growth forest than what's on this map; to protect fragile ecosystems and habitat, this guide limits itself to groves served by Forest Service trails.

If you desire an even finer level of detail, seek out Mary Vogel's *Ancient Forest Adventures*. In an example of where future jobs may lie in the Pacific Northwest, Mary has combined environmental education with tourism by offering guided hiking tours of ancient forests. —Richard Nilsen

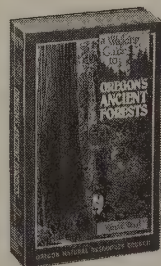
• Opal Creek Additions to Bull-of-the-Woods Wilderness (proposed) One of the finest ancient forest valleys in the Oregon Cascades, home to black bear, Roosevelt elk and spotted owls.

Take an all-day hike into the proposed Opal Creek Wilderness, 36 miles east of Salem. The 31,000-acre watershed, which is contiguous with the Bull-of-the-Woods Wilderness, contains classic ancient forest

with trees up to 250' high and 1000 years old. One of Oregon's few remaining unlogged old growth forest drainages and a key part of the largest intact stand of ancient forest in the western Cascades, the Opal Creek Valley includes 50 waterfalls (among them the 250'-high Opal Falls), five lakes, and 29 miles of hiking and equestrian trails. The area has become a major battleground and symbol of the conflict between conservationists and the timber industry over the fate of Oregon's remaining ancient forest. The wood products industry and some in the Forest Service have vowed to see Opal Creek cut, but conservationists are even more committed to protecting it. Forest Service plans still call for building a road up Opal Creek and clearcutting large areas of the forest. Eighteen timber sales are currently scheduled. —*A Walking Guide*

50 Old-Growth Day Hikes in the Willamette National Forest

\$7.50 postpaid from Old-Growth Day Hikes, P. O. Box 11288, Eugene, OR 97440



A Walking Guide to Oregon's Ancient Forests

Wendell Wood, 1991; 317 pp.

\$12.95 (\$15.95 postpaid) from Oregon Natural Resources Council, 522 SW 5th Street/Suite 1050, Portland, OR 97204

Ancient Forest Adventures

Information free from 16 NW Kansas Avenue, Bend, OR 97701 (or call Desert Wings Travel at 800/551-1043)



MUTUAL AGREEMENT:

Tactics For Negotiating

BY MORTON
YANOW

He who knows that enough is enough will always have enough. —Lao Tsu

I HAVE a postulate and a premise. You are good at what you do, but you don't always get what you want and you don't know why. That troubles you. You would like to do something about it.

You have tried to emulate the style of those who always appear to get their way. That didn't work. You tried aggressiveness, subtlety, humor. Tried serious, tried light. None of that seemed to work either.

When you look in the mirror every morning, what you see is reasonably impressive. You know that your strengths outweigh your weaknesses. You believe you have good interpersonal skills; you get along with most people, and if you are not without guile, there is at least no evil in your heart.

Yet there have been times when you believed you were right and really thought others would go along, and they didn't. And damned if you could figure out why not.

The reason is that you were not a good negotiator. No one ever showed you how.

My premise is that all successful (peaceful) human interaction requires negotiation: mutual discussion aimed at agreement.

To live alone, follow Thoreau. To live at war, follow Sun Tsu. But to coexist comfortably — emotionally, socially and/or professionally — with others, who have different, sometimes conflicting perceptions and goals, requires negotiation. Neither Thoreau nor Sun Tsu were negotiators.

Strategy is what you want. Tactics are what you use to get what you want.

Base your strategy on what you perceive to be *your* needs; base your tactics on what you perceive to be *their* needs.

Here follow, in no particular order, some tactics for successful negotiating. The list is incomplete, has been numbered for convenience and, also for convenience, uses the third person plural or "audience" in referring to those with whom you may negotiate.

These tactics are moral, ethical, and legal. I don't know the other kind; wouldn't use them if I did. From a practical standpoint, getting caught using immoral, unethical, and/or illegal tactics is at best counterproductive and at

Morton Yanow is senior associate of Allen & Yanow Associates in Bellevue, Washington, management consultants on the influencing of opinion. This piece is adapted from his recently completed book, *The Secret To Walking On Water: Tactics For Influencing Opinion*.
—Howard Rheingold

worst dangerous. Besides, if you know what you're doing, you won't ever need them. And you'll sleep a lot better.

Principles aside, if the people with whom you negotiate changed all the time — that is, if you never had to reach agreement with the same person twice — you might get away with using immoral or unethical tactics. But that's rarely the case. Most often we negotiate with the same people over and over — friends, family, associates; sometimes even on the same issues. It pays to retain your credibility.

Though it need not be and should not be, negotiation is often adversarial. Regardless, win/win is the optimum successful negotiation; both sides win and there are no enemies.

1.

There is a time to listen, a time to talk, a time to think, a time to decide, and a time to act. Take them in their turn.

2.

While listening, suspend critical judgment.

3.

Don't try to change their views; focus on the benefits of your own.

4.

Sometimes a hostile audience needs to blow off steam. Let them; they'll be less hostile afterwards.

5.

Draw out thinking when an audience is objecting, feed in thinking when they ask for it. If you feed them answers before you know their questions, you may give them indigestion.

6.

Ask questions concerning their underlying thinking, on the premise that you want to better understand their position. What you really want is for them to more carefully examine their own thinking.

7.

Questioning someone's judgment requires great tact. Preface such questions by acknowledging that something is true; ask the question; then give a reason for asking. Example: "It's true there are many other issues, and that makes this one difficult. Could you tell me what you think we're lacking that prevents us from working this one out? Maybe we can find some way to deal with it."

8.

Better to understate than overstate. Overstatement may give them a feeling of being manipulated.

9.

Back away from blunders quickly and completely. Have a strong place to go (your next argument), but plug the hole. If a fact was inaccurate, substitute an accurate one. If an analogy was faulty, find another that isn't.

10.

Choose your turf if you can. If you can't, choose neutral turf. If you can't, choose the time. If you can't, arrive late but have a good excuse.

11.

The temptation is to ignore the most hostile segment and to address the least hostile segment of the audience. But if you directly address the most hostile with an earnest and sincere approach, you stand to gain respect and support from the least hostile. Rudeness from the most hostile segment will heighten respect and support from the least hostile.

12.

Insults are best ignored.

13.

Find one thing, any one thing, on which you can agree. It becomes easier for them to say yes after the first time.

14.

Never lose your focus. Never let anyone change your focus for you ... but you.

15.

Patience is the most powerful negotiating tactic. Time is the most powerful negotiating tool.

16.

Seek agreement on low-risk matters first.

17.

To be trusted, be trusting.

18.

Never enter into, participate in, or respond in kind to, a personal attack.

19.

But never take abuse either. Leave.

20.

Start easy, build to difficult.

21.

Link controversial issues to issues that are easily resolved.

22.

Broach a desirable message first, undesirable second.

23.

Present all sides of an issue, not just yours.

24.

To get them to understand your point of view, first demonstrate that you understand theirs.

25.

Weak audience: be predictable. Strong audience: be unpredictable.

26.

To sell your viewpoint:

- a. talk less, listen more
- b. don't interrupt
- c. don't be belligerent; be softspoken, moderate, controlled
- d. don't be in a hurry to make your points
- e. restate others' positions and objectives as soon as you know them
- f. identify the key point and stick to it; don't overwhelm with arguments
- g. don't digress; don't let others digress
- h. be *for* a point of view, not *against* a point of view

27.

The more they invest in the process, the more important it will be to them to reach a successful conclusion. Get them to invest as much time and energy in the process as you can.

28.

Avoid surprise: it creates a communication block. If surprised yourself, play for time.

29.

If their "face" is at risk, offer a way to save it, but never refer to it as such.

30.

Avoid phone negotiations when possible (remember: it's easier for them to say no on the phone).

If not possible:

- a. if you are called, listen; ask questions; say you'll call back
- b. talk less
- c. if you call, dry-run your call first
- d. make a checklist before you call
- e. promptly confirm what was discussed, in writing
- f. set the stage for your call with a preliminary call or letter

31.

If deadlocked, use a third-party intermediary.

32.

Truth and candor are valuable assets; you don't have to use all your assets at once.

33.

"Cards on the table" is an American trait, the belief being that "cards talk." That is not everyone's operating principle. Check the house rules.

34.

Don't make concessions until you know all the demands.

35.

Never honor an unrealistically high demand with a counter-offer.

36.

Never agree that an issue is beyond compromise. All issues are negotiable.

37.

Deadlines are negotiable, too.

38.

Try not to be the first to concede on a major issue.

39.

Concessions should move you closer to your goal.

40.

Never discuss an issue for which you are unprepared.

41.

Never be intimidated, not by anger, threats, power plays, or rank-pulling. Neither retreat nor counterattack. Walk your own path.

I HAVE SUGGESTED THAT win/win is the optimum negotiation. It is not the *only* possible outcome of negotiation. You could lose. One can do everything right and still fail to reach mutual agreement. No set of tactics can guarantee success. "Right conduct" assures you only of "no blame." The proper measure of any negotiation is not win, lose, or draw, but whether you did the very best you could. If not, do it next time. But if so, smile days, sleep nights. ♦

Learning to Listen to the Land • The Green Reader

From a literary standpoint, *Learning to Listen to the Land* is by far the better of these anthologies. Yet I would not want to discourage anyone, especially a newcomer to the ecology racket, from perusing *The Green Reader*. Andrew Dobson, who edited *The Green Reader*, is a British political scientist. His prefaces are intelligent and useful and amount to a thoughtful scan of the spectrum of Green. The book suggests an emergent body of radical political theory and even some practice. Dobson's sampler could lead the reader down any of a dozen paths — to read Petra Kelly, Arne Naess, Rudolph Bahro, Brian Tokar, even Aldous Huxley.

Bill Willers, who edited *Learning to Listen to the Land*, is a biologist. Evolution provides the focus, and the biodiverse voices of Reed Noss, David Ehrenfeld, E. O. Wilson, and Norman Meyers (among others) detail what's at stake. The essays have the elegance and coherence of nature itself. The net effect of *Learning to Listen to the Land* is suggestive rather than prescriptive.

There is some overlap between the two books, but no redundancy. Dobson presents ideas, Willers thoughts. At this point in our history, we need that and more. —Stephanie Mills

■ How Big Is Big Enough?

Thirty-two years ago, two eminent biologists named MacArthur and Wilson published a book which sent ripples through the mainstream (and most of the tributaries) of ecology. *The Theory of Island Biogeography* is perhaps the most frequently cited manuscript in ecology, and has given rise to a flood of research in genetics, population dynamics, niche theory, bioenergetics, and conservation biology. . . .

It is important to understand that this theory is not really about islands in the Robinson Crusoe sense. Island biogeography is about a phenomenon of which islands are only a good example. What island biogeography is really about is *isolation*, some discontinuity in the environment which effectively isolates a species, or a natural community. (Joan Bird)

● A geophysical system always begins with the action of an individual organism. If this action happens to be locally beneficial to the environment, then it can spread until eventually a global altruism results. Gaia always operates like this to achieve her altruism. There is no foresight or planning involved. The reverse is also true, and any

species that affects the environment unfavorably is doomed, but life goes on. (James E. Lovelock)

■ It is not enough to protect our few remaining bits of wilderness. The only hope for Earth (including humanity) is to withdraw huge areas as inviolate natural sanctuaries from the depredations of modern industry and technology. Keep Cleveland, Los Angeles. Contain them. Try to make them habitable. But identify big areas that can be restored to a semblance of natural conditions, reintroduce the Grizzly Bear and wolf and prairie grasses, and declare them off limits to modern civilization.

In the United States, pick an area for each of our major ecosystems and recreate the American wilderness — not in little pieces of a thousand acres, but in chunks of a million or ten million. Move out the people and cars. Reclaim the roads and plowed land. It is not enough any longer to say no more dams on our wild rivers. We must begin tearing down some dams already built. (Dave Foreman)

—*Learning to Listen to the Land*

■ Most ecosocialists, myself included, doubtless prefer to imagine a decentralized federation of autonomous communities, producers' collectives and the like, cooperating on the basis of freely entered mutual association. If one is honest, however, about the objectives which an ecologically enlightened society would set for itself, it is difficult to avoid concluding that the state, as the agent of the collective will, would have to take an active law-making and -enforcing role in imposing a range of environmental and resource constraints. More problematically, an ecosocialist transformation, which I regard as necessary if we are to transcend the contradiction between ecological imperatives and market 'laws', implies the necessity of replacing the current, highly centralized institutions of capitalist finance and production, and here the state must play an active role also. (Martin Ryle)

● There is no reason why private enterprise should be any more environmentally damaging than public or state enterprise. The United States may have given us Three Mile Island, but the Soviet Union topped that with Chernobyl. Early estimates put the cost of the Chernobyl disaster, which has spread radioactivity across Europe, at around £4 billion — and the figure has continued to climb. Indeed, some of today's worst examples of conventional, non-nuclear pollution are also to be found in such communist bloc countries as Poland, Czechoslovakia and the Soviet Union. The evidence suggests that once capitalists and



Learning to Listen to the Land

Bill Willers, Editor. 1991; 282 pp.

\$14.95 (\$17.95 postpaid) from Island Press, Box 7, Covelo, CA 95428; 800/828-1302 (or Whole Earth Access)

The Green Reader

Andrew Dobson, Editor. 1991; 280 pp.

\$11.95 (\$13.95 postpaid) from Mercury House, 201 Filbert Street/Suite 400, San Francisco, CA 94133; 415/433-7043 (or Whole Earth Access)

entrepreneurs are convinced that environmental regulations are here to stay and that they will be enforced, they respond much more rapidly to the challenge than do highly bureaucratic societies.

(John Elkington and Tom Burke)

● Green thinkers like to define their political position as 'beyond left and right'. There are various tests to which we can put this claim, and while it emerges that Green politics might differ from, say, both conservatism and socialism in its opposition to what Greens call 'industrialism' (i.e. that people's needs are best satisfied by increasing economic growth), it also borrows from those traditions from which it wants to distance itself. In one important way, not often noticed, Green politics agrees with a basic principle of traditional conservatism: that the fundamental ignorance of human beings in the face of the enormous complexity of the world which surrounds us should be a basis for our thinking twice before intervening in it. Arne Naess expresses this quite clearly in the following passage, and suggests that the burden of persuasion should be shifted onto those who would encroach on the environment rather than those who want to preserve it. Promoting this shift is basically what Green politics is all about. —*The Green Reader*

Politics and religion do mix:

A Witch's

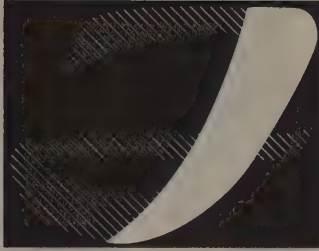


Christine Alcino

Manifesto

BY Z BUDAPEST





HAVE WONDERED for two decades when the happy day will arrive: before every large gathering of women, a woman steps out and leads a prayer to the Goddess. After all, when five men gather together, a sixth will commonly bless them and make them feel like God's gifts to humanity!

I have been an activist for twenty years and a witch for much longer. I have grown old trying to convince and teach feminist and mainstream women that spirituality and reverence for the Goddess would only enhance their labors and, in fact, fuel them when they feel depleted by too much political work. Resource/energy management, I argued, is a spiritual skill.

There remains a large schism between so-called political feminists and spiritual feminists. It is an imaginary difference that exists mostly in the minds of political feminists; the spiritualists know that politics and spirituality go hand in hand, historically reinforcing each other.

When I first joined the women's movement I was just divorced, a prime candidate for a life-changing experience. I thought,

"If I can't become myself somehow, I don't want to go on." I already considered myself a witch, one of a

Hungarian family line involved in herbology and healing that goes back to 1270. But being a witch helps you very little if you have no understanding of what is happening to you, historically, as a woman.

Dearest Goddess,

We gather here together as women

To honor ourselves and you within us.

Please clarify our minds as we set about our tasks.

Let tolerance and wisdom reign amongst us.

Blessed be!

I've known for many years that witchcraft has a bad name for no good reason — the big lie seemed evident to me from the moment I learned that the people who gave witches a bad name also believed it was noble to burn them alive. This is the *Whole Earth Review*, and witchcraft, paganism, and Goddess-centered spirituality all purport to be the modern remnants of ancient earth-centered religions, but I didn't make contact with

the right witch-author until her picture came in the mail. A few months ago, I tore out a page from *Frisko* magazine (Spring 1990; six issues/year \$12 from 870 Market Street, Suite 414, San Francisco, CA 94102-9753). It was a full-page photograph of "Z Budapest, Witch," captioned: "If you trash witchcraft, you trash your ancestors."

I was struck by what Budapest had to say in the interview that accompanied her photograph; I saved it

because it seemed not only to be a succinct demystification of witchcraft, but to indicate a very contemporary way of thinking about social problems: "Witchcraft isn't exotic at all. Witchcraft is the native religion of Europe. It is basically a Goddess religion that centers on love and respect for the Earth and the power of women. When Christianity took over Europe, it demonized all these things. It made a demon of the

Within two weeks of my arrival in Los Angeles in 1967, I went to my first Women's Liberation march. I joined the staff at the Women's Center and started raising my consciousness about feminist issues. At that point, a curious thing happened. All my memories about the old religion came back to me. Suddenly, it was easy to put the two aspects of my life together. I said to my friends in the women's movement, "Look, you have a political analysis, but you don't have a cosmology. You can't have a revolution without cosmology." So I told them about earlier religions and witch-burning and how the Goddess is everywhere. They gave me a very cool reception at first, but they allowed me to follow through with my first Sabbat because I was a staffer and had earned my stripes as an activist. The first Sabbat I had, I told the six friends who came, "I know enough to begin it. The rest of it, we have to invent."

The more I struggled with the two parts of my life as an independent woman, the more convinced I became that feminism lacked its altogether natural, inherent, matching cosmology: that of the Goddess. No powerful movement can hold the minds of millions without stories, theologies, lore, ritual, and blessings.

But women have depended more on facts and logic, and a sense of injustice, to fight for our civil rights. In a way we fought back like men, which is something women were misled to believe is the way to win: if only we could show them that we are not emotional creatures, then they would let us have our bodies and our human rights. Only rarely do we allow women to raise the energy of our dem-

Goddess, and denigrated the Earth and women. It said that to worship these things was to worship Satan. It cut us off from our spiritual roots, and in doing so created a huge psychic scar. The fact is, all of our ancestors practiced witchcraft and the reason we don't know about it is because we are alienated from our roots. If you trash witchcraft, you trash your ancestors; if you trash your ancestors, you trash yourself. It is not a

healthy thing to do, and it has created a very unhealthy society, especially for women."

A German journalist visited the Whole Earth office, noted Z's photo on my wall, and told her about it. When she called me, I learned that she is a hereditary witch and a self-taught feminist. Born in Budapest in 1940, she learned herbs and spells, rebellion against authority, and feminist sympathies from her family — herbalists and



The Holy Book

healers since the thirteenth century. Her grandfather was the governor of Transylvania; her grandmother was Hungary's first congresswoman. Her mother was a professional sculptor and a psychic.

A student activist during the Hungarian anticommunist uprising, Z emigrated to the US in 1958. In the 1970s, she became active in women's groups and helped organize "Take Back the Night" marches against rape.

She founded the Women's Spirituality Forum in 1986, dedicated to bringing a spiritual element to feminist consciousness, and has written several books (see pages 39, 40, and 41).

Z wrote this piece for WER in response to our interest in her attempts to combine witchcraft and political activism.

—Howard Rheingold

SYMBOLS FOR THE REVOLUTION

AT DEMONSTRATIONS FOR ABORTION RIGHTS

Ask women to bring instruments of any kind, rattles, drums or clicking stones.

Use old dolls by stringing them on a necklace and have women wear them as symbols of the number of children they have brought to life.

Create an image of the Great Goddess from papier-mache. The Cretan Serpent Mother is very effective: she has her large breasts exposed, holds her arms high over her head with a happy serpent in each hand. Her eyes are merciless, she is unsmiling. Her image can be carried on a litter, or on a float or truck. She is the symbol of an uncompromising female ruler, giver of life and death. Women march ahead of and behind her image and shake their rattles, especially when they are tired of chanting.

The rhythm emerges naturally at the site.

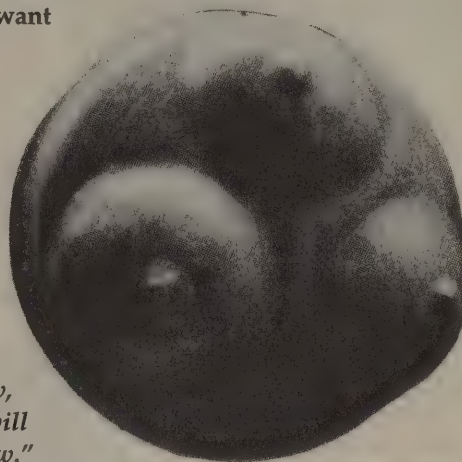
In addition to the normal feminist chants, you may want to try a very bold one:

*"Tremble, tremble,
the witches have
returned!"*

Or: *"Mine is
the power of
life and death.
I give life and
I gather it back!"*

Or: *"Pennyroyal,
rue, cohosh and yarrow,
Knowledge of nature will
drive away your sorrow."*

Carry signs of natural herbs that cause abortion, or have branches and sprigs of them in your hand. Pass them around for women to recognize and learn them.



The Heart of the Goddess

onstrations with symbols of the Goddess; we rarely use ritual to give drama and effectiveness to our political activities. How much better it could have been if we had marched together on those many marches of the past, shaking rattles in our hands to the rhythm of our steps! How much more awesome half a million women would have appeared, marching on Washington carrying a huge statue of the Great Mother!

If I had my way, I would inject a large dose of art, music, street theater, ritual, and movement to lend more emotional impact and power to public demonstrations. But nobody asks a witch to design symbology for the women's movement.

In fact, the feminist witch is odd woman out. We

have been on the fringe for a hundred years — Elizabeth Cady Stanton, founder of the American suffrage movement, was thrown out of her own organization for publishing a feminist commentary on the Bible called "The Women's Bible." (After all, previous translators had been rewarded for interpreting the work to suit their employers' fancies, and no biblical translator ever met Christ.) Her sister suffragists thought they were radical enough demanding the right to vote; to bring God (and the other Christian god, the Devil) into question was going dangerously too far. Feminist spiritualists such as Victoria Woodhull, the first woman to run for president, were treated as anomalies of womanhood even by their own sisters.

It is not much different today. Feminist papers

in Europe as well as the US pride themselves on not giving attention to matters of the spirit — too flakey, not significant or political enough. Yet we are significant; we are a psychic strike force for women!

I have not found it easy to convince even lesbian activists of the importance of woman-identified spirituality. All you would know about lesbians from the *San Francisco Bay Times* is that they do nightclub acts, they sing, they have babies, and they demonstrate vigorously when fighting for AIDS funding and help. You would never know

from reading this lesbian newspaper that the San Francisco Bay Area is the hub of a growing Goddess movement, that more books on related topics are sold here than anywhere else, and that most teachers who are also bestselling authors of such books live here. Spirituality conferences, large rituals, and even theater are not covered because they are "not priority."

How about the other movements afoot these days intended to make the world a better, saner, happier place? The "new age" movement grew from the spirit's hunger, but without being politically in-



SYMBOLS FOR THE REVOLUTION

At Take Back The Night Marches

We started with a rally in Los Angeles, men and women together, united in our outrage at violence against women.

It was a new moon, but a dark moon or a waning moon would be just as good. I lit my candle and held it up to the moon as all the others lit their candles. (Again, ask people to bring drums and rattles to keep a good beat and to make it more magical.)

*Lovely Goddess of the night,
I pray to you with all
my might.*

*Let the hatred against women
Ebb, Ebb, Ebb, then Die.*

*Let women be free,
Let humanity thrive!*

Then the march moved onto Hollywood Boulevard. Each time we paused in front of porno movies, exploitation posters, etc., we chanted something new, holding our candles aloft as we spoke.

The candles gave it all a religious glow; the Goddess



The Heart of the Goddess

gave it a divine integrity that anger alone could not have mastered. It also made the angry male chauvinist pigs reflect that what they were allowing had no honor.

The Grandmother of Time

This book is soul food!

In this lovingly crafted and passionate book, Z Budapest provides us with a comprehensive guide to infusing ecstasy and revelry into our lives. Based in part on the orderly procession of months and seasons, this collection of cross-cultural celebrations, holidays, stories, teachings and spells, many ancient in origin, serves as a vital means by which we can re-connect with our own ancient heritage and ultimately our families, communities and world.

The spiritual nourishment offered here is governed by the timeless body of wisdom that culminated from the experience of all physical life as sacred. (And let's face it — grounding in nature is the only real way one's inner life is nurtured.)

I found this book to be full of tools to re-create my personal vision of the world as more connected, loving, significant and humane. —Jennifer Roberts

• Celebrations are a womanly art. Women are the rememberers of our species, the cooks of festival foods. Our nurturing arts are the glue that has held society together, since the first wild boar we barbecued on a stick in front of our caves to the Thanksgiving turkey we put into the microwave oven today. Celebrations are made by women dressed in flowing robes or three-piece suits or cocktail dresses or housedresses, by light-footed nymphs treading the sacred dances, or just Grandma romping up a little two-step after dinner. Our voices rise in heavenly chorus, praising this season or that goddess, this fortune or that harvest. We walk in procession with friends and neighbors through the familiar landscapes, blessing the fields.

This is what celebrations are made of; this is what I wanted to find again. A great loneliness has descended on us. We no longer buy into the old fear-induced religions. The wrathful gods have lost their power over us, and we let them rave and rant until we click off our TV sets. But deep within us there is a space that now more than ever is painfully empty, as if we had a hollow above our hearts where the old revels used to live, yearning to be filled. We must be careful about what we feed our spiritual hunger — it cannot be junk food any more.

• *April 1 Veneralia (Roman)*

This is the holiday of Venus (Aphrodite to the Greeks), the goddess of love and death, of orchards and sexuality, of the waters of the world. This celebration appears to be a practice peculiar to women, who washed the image of the Goddess in rivers and

lakes before again adorning her with her precious jewels and new long robe. The women burned incense to her in her aspect of good fortune, to ensure happy love, birth, and joy in their lives. This ancient description in Ovid's *Fasti* shows how alluring this practice was, and how widespread among all kinds of women.

Then dry her neck and restore to it her golden necklace, now give her a fresh-blown rose. Ye too: She herself bids bathe under the green myrtle. Learn now how to give incense to Fortuna Virilis in the place that reeks of warm water. All women strip when they enter that place. . . . Propitiate her with supplications, beauty, and fortune and good fame are in her keeping.

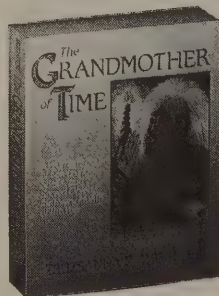
It isn't an accident that April Fool's Day grew from this most emotional and sensuous observance. Is it not love that makes fools out of kings? Or queens? Let's be honest — love is the common denominator, the feeling that makes us all crawl and jump through the hoops, achieve heights of glory or the all-time lows of foolishness, most often the latter. April Fool's Day originates from this womanly calendar event when all kinds of foolishness were acted out to venerate the Goddess, symbolizing love's rule over logic. On this day, lovers ordered each other on senseless errands in proof of their love and devotion.

• Women and men need the revels for the same reasons. It is a chance once or twice a year to release the wildness within. Why is ecstasy good for us? In ecstasy we touch heaven while still living; we commune with the goddesses and gods who are inside us. Ecstasy is what humans need to endure the drudgery and confinement of the rest of modern life. Ecstasy frees us from our accumulated burdens, be it psychic garbage or leftover depression. It is a way for us to cleanse ourselves from our past and renew ourselves.

Today we drink to excess or take drugs, but can you imagine using dance, music, fresh air, moonshine, singing, and good company to achieve ecstasy? Imagine be-



coming gods behind our masks, encountering people we would normally never meet and sharing with them the joy of the seasons? Imagine taking back the streets not only for angry marches but for revels, for dancing, and for walking safely? Imagine a common denominator, the love of nature and the seasons, that abolishes class distinctions even for a short time, a time when rich and poor celebrate together.



The Grandmother of Time

Zsuzsanna Budapest, 1989; 261 pp.
\$25.95 (\$19.45 postpaid) from
HarperCollins Publishers/Direct Mail,
P.O. Box 588, Dunmore, PA 18512;
800/331-3761 (or Whole Earth Access)

formed it ended up male-identified and male-dominated. The new white gurus, the self-help boys, market spirituality like a precious middle-class commodity, and help themselves to witchcraft's wisdom for information, rituals, and chants — then cut out the Goddess and turn the wisdom into self-help exercises. Most women who support these sanitized versions of witchcraft never know they are partaking of their own gelded culture for a high fee. The personal *is* political.

New-age male leaders don't generally talk about women as a group (we are all the same, they in-

tone) because they are afraid that their main support system, the ladies, will wake up from their guided meditations (it's my karma, I choose my misfortune, etc.) and dump male-oriented spirituality. They even caution against feminist spiritualists as unhappy harpies who've lost their femininity by losing interest in male leadership.

Neopagans (though some are men who truly love and worship the Goddess) are not very happy about women as a group either. Once, at a Pan-Pagan festival, I asked the women to join me for an all-female circle in the woods just to expose them to

The Holy Book of Women's Mysteries • Grandmother Moon

Z Budapest is the Julia Child of witchcraft, making accessible the way to cook up delectable spells, chants, rituals and festivities for each microseason and occasion of the lunar year.

The Holy Book of Women's Mysteries is the first and Grandmother Moon is the latest of Z's practical guides to wiccan wisdom. Holy Book includes sections on the occult and arcane by other savants: dream interpretation and the politics of food are two subjects covered. Photos of Z's mother with her powerful goddess-inspired artwork bring home just how deep Z's roots are, and how destined she was to teach. There's a lot of heft to this book.

Grandmother Moon is a book of thirteen lunations to carry you through the year and the life. Some holy days from the previous book, The Grandmother of Time, are here reclaimed as original lunar celebrations. As with all of Z's books, the complex and artful garland of stories and philosophical musings is so spicily fragrant that it invariably tickles me into reading further and further into the magical, now-friendly night.

—Robin Bishop

• Tools of the Craft — Psychic

The number one tool that we have is imagination. Do you remember when you were a child, how you could populate an empty space with things, people and conversations; experience total transformations within by just imagining them? This childhood imagination is stifled during the school years. We are socialized, forbidden to fly with our thoughts.

I visited the place in Hungary where I grew up, and I saw the beloved backyard of our traditional yellow building. As a child, I lived on the ground floor of a four-story apart-

ment house. Of course, the yard was much smaller than I remembered it, but it was still there and just as dark. Many people tried to plant flowers there, but because of the shadow from the apartment house, nothing grew.

But I remember playing there with a red brick representing a train. I pushed it around on the ground for hours and hours on end, making little tracks. And I stopped in make-believe places, and I called them whatever I knew. For instance, I went to Africa and visited the jungles and saw the tigers and the elephants. Other times, the train stopped in Paris and I got out and I became a grown-up lady, shopping for clothes. I went to Australia in the backyard, watching the kangaroos hop around, catching them and playing with them. I remember the backyard transforming into a stage for ballet, where I was the prima donna and I danced for hours in front of a giant, roaring, applauding audience. Other times I went on quiet walks and transformed myself into birds and flying creatures. I battled dragons. I won battles and generally had a grand time. This is the precious faculty we use in magic; we use it in everyday life, and

in creating our reality — our imagination.

The second tool is breath. When you sit in front of your altar, you become conscious of your breathing. You imagine your lungs becoming like wings and you fill them with air. You see, your being is connected to life through breath. When you gather with others, holding hands and breathing in unison, you become as one. It's very easy to unify with many people by just breathing together. Even if you are not doing the



—Grandmother Moon

what pure female energy feels like. I looked back to see a small, forlorn group of men left sitting on the lawn, waiting for the women to return — and it was indeed a small group, because all these spiritual events, both alternative and mainstream, are composed and supported by 85 percent women. It is awesome to imagine the day when we will put our boundless energies towards our own needs and happiness!

We need some visible political allies. The only ones I see on the horizon have barely arrived: the greens. I met the greens at tree-planting rituals, which is

something that witches traditionally do to celebrate the birth of a baby. The greens thought that was neat! But some witches active in Earth First! reported resistance to forming a circle and holding hands as witches do to create a power vortex. However, the resisters softened when they saw how prayers thus rendered produce results.

The root of all this mistrust is that we don't trust women with any kind of power — especially spiritual power, because women might be too good at it. Why should we? Women have been out of power for so long, what can they know anyway?



Craft, but gathering to discuss an issue or have a meeting, it's a very good idea to hold hands and breathe together a little while before you begin. You will find people becoming friendlier and more focused, and the work being done faster. Then, at the end, close the meeting by breathing together.

The third tool is something I call "clear targeting." To find purpose is a gift. You have to work for it. It's not just "Oh, here it is. I'll pick it up and it's mine." If you think about attaining peace, you have to meditate on that, too. You have to meditate first before you can find the

proper target. Whatever you do, you can always find a positive way to get to it, even if you are in great trouble.

The answer is not to smite your enemy to the death, because Mother Nature does

not work like that. You are better off finding a positive way to attain what you need. Just meditate on your purpose. To find your purpose and for proper targeting, get yourself a skyblue candle. The color blue is a relaxing color. It's easier to find answers (your purpose) when you are relaxed. Write your name on the candle three times and meditate on your purpose three nights in a row. Burn a little incense as well. —*The Holy Book of Women's Mysteries*

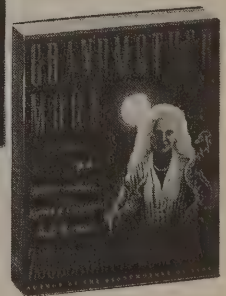
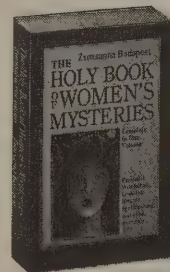
- Animal estrus is triggered by the reduction or increase of the hours of light. St. Valentine's Day, when we honor lovers, comes from the older holiday Luperalia (see *The Grandmother of Time*), the time when wolves go into heat, around Candlemas. What is happening around February 2? The hours of light are getting longer. Animals, first the smaller ones then the larger, are affected, and the mating season arrives for our animal friends. Animals are not interested in mating as individuals (though many choose mates for life). They are totally dependent on the amount of sunlight to trigger the changes in their bodies that will make them want to mate in the first place.

- Wherever the holiday [Shavuoth] comes from, consider it an opportunity to give thanks for all that you have been given.

Make an offering of your own firstfruits — put examples or symbols of your work on your Moon altar and thank the Goddess for giving you the strength and skill to do it. Burn a gold or green candle and ask her to help you continue or complete it. Don't be stingy with your abundance. Give all the change in your purse to the first panhandler you see, or make a gift of canned foods or money to a shelter for the homeless. —*Grandmother Moon*



My mother, Masika, learned all the arts of witchcraft: how to bless and curse; how diseases are cured with natural herbs; how to understand the language of animals; how to read cards and omens; how to speak with spirits. —*The Holy Book*



The Holy Book of Women's Mysteries

Zsuzsanna Budapest, 1989; 382 pp.

\$11.95 postpaid from Wingbow Press, 7900 Edgewater Drive, Oakland, CA 94621 (or Whole Earth Access)

Grandmother Moon

Zsuzsanna Budapest, 1991; 288 pp.

\$15.95 (\$19.45 postpaid) from HarperCollins Publishers/Direct Mail, P.O. Box 588, Dunmore, PA 18512; 800/331-3761 (or Whole Earth Access)

But women do know a cooperative power — a power from within, not over — a power that can give, sustain, or take life. As the majority of the labor force of our species, women know the power of hard work. And women know psychic power — the power we have almost allowed to slip away.

So who are the friends of the Goddess? Somebody out there is buying our books, reading them ferociously, doing rituals from them, gathering with others in small groups to worship under the moon. I lecture around the world. I was recently invited as the only woman spiritualist honoring the Great Goddess to an East-West gathering in Germany. Five thousand people filled the stadium in Potsdam. When I asked the women to stand up and be honored, many of them cried; in their experience no one had ever honored women as a group before. This made me sad and impatient.

I am now fifty-one years old. I started these teachings at thirty. I worry, will there be another sixty-

year fallout like we had after we finally got the vote? The new generation would then have the extra burden of reinventing the wheel rather than inheriting a body of work and taking it from there.

Now time is up. I am convinced that no matter how great the backlash, it will just make the Goddess within wake up all the more strongly. We are still our own worst enemies — women hating women as well as men hating women. Goddess-centered spirituality can help cure that.

My European ancestors and yours risked the Inquisition's stakes and racks to keep alive a body of knowledge about power and healing. My generation of witches is making this wisdom accessible to those who seek a spiritual foundation for political work. The Goddess is alive. Find out how to meet her and you will discover how she can help us shape the future. ♦

Shakti Woman

Vicki Noble writes with the integrity of one who knows and dares to speak. She is a visionary healer who addresses the most urgent personal and collective crises of our time as a call for all women to honor their innate authority. Shamanism is not exclusively a male province. By understanding and inhabiting the body as a necessary prerequisite to gaining deeper levels of knowledge and higher levels of consciousness, women will lead more authentically empowered and effective lives.

Here are the formative experiences of Ms. Noble's personal unfolding as a female shaman. Corroborating scholarly data serve as a key to unlock some mysteries of the shamanic process. These experiences provide the impetus and structure for Noble's teachings and practices.

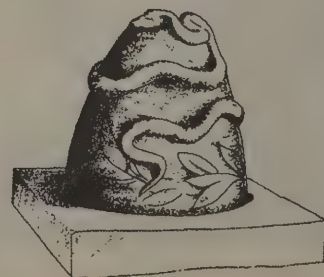
In this synthesis of her personal path of spiritual questioning, scholarly investigations, and shamanic experiences, Ms. Noble has delivered an inspiring and important work. She courageously holds the lamp of knowledge to illuminate the path for others. —Jennifer Roberts

■ What does seem necessary is for each of us women to pull her focus back inside herself and to begin actively and intelligently to create the world we want. This



The Crowning by Judy Chicago, one of many amazing images of women giving birth from the Birth Project.

may sound abstract, simple, and impossible at the same moment, since it seems so easy to focus on oneself and so impossible to change the world. But neither is true. For a woman actually to repossess herself and to center there is a monumental task, taking years of difficult, painstaking work. This is the work I am calling female shamanism, a gradual mastery of oneself, and a healing or recovery from the chronic dis-ease of our time. Once a woman has done the work of re-remembering herself, she is much more able to change the world effectively.



The Delphic Omphalos, the "navel of the world," the umbilicus linking the oracular priestess at each center with the source energy of Mother Earth.

Simians, Cyborgs, and Women

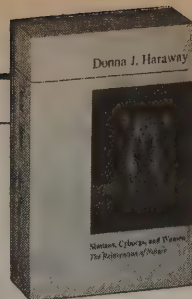
Part essay collection, part autobiography, *Simians* tracks the transformation of a "socialist-feminist, white, female, hominid biologist" into "a multiply marked cyborg feminist."

The essays focus on gender roles in scientific discovery, and on nature's invention, mutation, and reinvention in the late twentieth century. The first third of the book describes the battleground of the natural world (as close as the body, and as far as the land); the middle section "explores contests for the power to determine stories about 'nature' and 'experience' — two of the most potent and ambiguous words in English."

It's in the third, fascinating section of the book that Haraway shines, and where she shows herself to be a true heretic. The centerpiece of the section is "A Cyborg Manifesto," a controlled and sustained brainbun in which Haraway not only lays out the problems of perspective in a postmodern culture, but actually offers a solution: what she calls "cyborg embodiment," a dual point of view

formed from the psychic melding of the organic and the machine, forming a hybrid creature that slips easily between the natural and unnatural worlds. In "A Cyborg Manifesto," Haraway has constructed a Declaration of Independence for mutants, an anthem for a planet of bombarded and fragmented post-humans — the hopeful monsters who will hop and wobble their way across the minefield of postmodern culture into the next century and beyond. Utopia will never be the same. —Richard Kadrey

Let us remember that evolutionary biology in the nineteenth and twentieth centuries is part of the public debate about the human place in nature — that is, about the nature of politics and society. Primate social behaviour is studied inescapably as part of the complex struggle in liberal Western democracies to name who is a mature, healthy citizen and why. Argument about human politics from a state of nature is a hoary tradition in Western political discourse; its modern form is the interweaving of stories in natural and political



Simians, Cyborgs, and Women

Donna Haraway, 1991; 287 pp.

\$16.95 (\$19.45 postpaid) from Routledge Chapman and Hall/Order Dept., 29 W. 35th Street, New York, NY 10001; 212/244-3336

economy, in biology, and in social sciences. Further, I want to argue that primate stories, popular and scientific, echo and rest on the material social processes of production and reproduction of human life. In particular, primate bioanthropology from the 1920s has figured prominently in contests in ideology and practice for who will control the human means of reproduction, as well as in contests over the causes and controls of human war, and struggles over technical ingenuity and co-operative capacities in family and factory.

By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. In the traditions of 'Western' science and politics — the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other — the relation between organism and machine has been a border war. The stakes in the border war have been the territories of production, reproduction, and imagination. This chapter is an argument for *pleasure* in the confusion of boundaries and for *responsibility* in their construction.

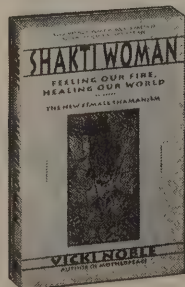
The cyborg is a creature in a post-gender world; it has no truck with bisexuality, pre-*oedipal* symbiosis, unalienated labour, or other seductions to organic wholeness through a final appropriation of all the powers of the parts into a higher unity. In a sense, the cyborg has no origin story in the Western sense — a 'final' irony since the cyborg is also the awful apocalyptic telos of the 'West's' escalating dominations of abstract individuation, an ultimate self untied at last from all dependency, a man in space.

I would rather be a cyborg than a goddess.



These calendar bones with emphasized breasts are clearly notched with timekeeping lines and may have something to do with the cycle of breast-feeding and the natural birth control practiced by tribal people such as the Bushpeople in Africa, who space their children by about four years, which is the duration of nursing for each child.

what she sees and knows as fact. How is she to do this? The earth is alive and the helping spirits are active, the elemental forces are there all the time, ready to mix and blend with our activities. The average person has tuned them out through a cultural reliance on a mechanistic science and worldview that doubts their existence. When a modern woman tunes into their presence, even as a mere possibility, they suddenly become visible in ways that cannot be denied, as if her eyes had a new ability to see.



Shakti Woman

Vicki Noble, 1991; 255 pp.

\$14.95 (\$18.95 postpaid) from HarperCollins Publishers/Direct Mail, P.O. Box 588, Dunmore, PA 18512; 800/331-3761 (or Whole Earth Access)

A woman shaman has to learn to trust her instincts and intuition. This is not foreign to a tribal woman: She is raised in nature, with a body-based experience of existence that includes farming, seasonal changes, natural birthing and child rearing, music, festivals, and a shared sense of the sacred. A North American white woman somehow — in the midst of a culture that denies her perceptions of reality — has to come to believe in

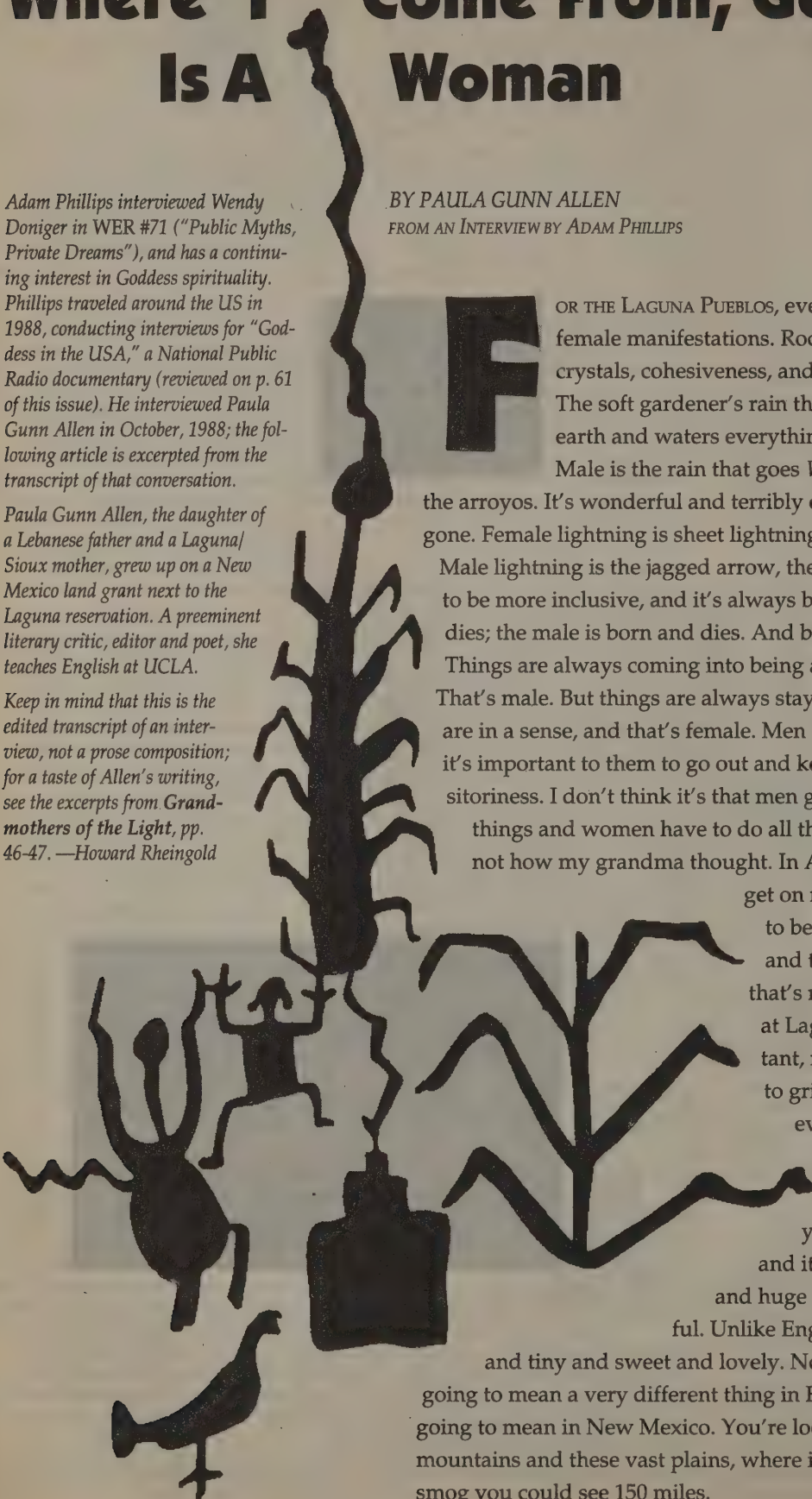
Where I Come From, God Is A Woman

Adam Phillips interviewed Wendy Doniger in WER #71 ("Public Myths, Private Dreams"), and has a continuing interest in Goddess spirituality. Phillips traveled around the US in 1988, conducting interviews for "Goddess in the USA," a National Public Radio documentary (reviewed on p. 61 of this issue). He interviewed Paula Gunn Allen in October, 1988; the following article is excerpted from the transcript of that conversation.

Paula Gunn Allen, the daughter of a Lebanese father and a Laguna/Sioux mother, grew up on a New Mexico land grant next to the Laguna reservation. A preeminent literary critic, editor and poet, she teaches English at UCLA.

Keep in mind that this is the edited transcript of an interview, not a prose composition; for a taste of Allen's writing, see the excerpts from *Grandmothers of the Light*, pp. 46-47. —Howard Rheingold

BY PAULA GUNN ALLEN
FROM AN INTERVIEW BY ADAM PHILLIPS



FOR THE LAGUNA PUEBLOS, everything has male and female manifestations. Rocks and hard things, salt, crystals, cohesiveness, and thought are female. The soft gardener's rain that goes slowly into the earth and waters everything: that's female rain. Male is the rain that goes *Wham!* and runs down the arroyos. It's wonderful and terribly exciting, but then it's gone. Female lightning is sheet lightning that fills everything. Male lightning is the jagged arrow, the bolt. The female seems to be more inclusive, and it's always big. The female never dies; the male is born and dies. And both things are true. Things are always coming into being and passing away. That's male. But things are always staying right where they are in a sense, and that's female. Men are warriors because it's important to them to go out and keep testing their transitoriness. I don't think it's that men get to do all the exciting things and women have to do all the dull things. That's not how my grandma thought. In America, the ones who get on radio and TV and get to be president are the men, and they've convinced us that's really important. But at Laguna it was important, maybe more important, to grind the corn and feed everybody.

Where I come from, the earth is female; you look at the landscape and it's stone mesas, it's vast and huge and terrifyingly powerful. Unlike England, which is gentle and tiny and sweet and lovely. Now Mother Earth is going to mean a very different thing in England from what it's going to mean in New Mexico. You're looking at these enormous mountains and these vast plains, where in the old days before smog you could see 150 miles.

Where I come from, God is a woman. To understand native people you have to understand female force, female intelligence in native systems. It is tribal and female-focused or female-centered. It's not about all these tough women who beat up on men. It's about balance and mutual respect and reciprocal obligation. Our relationship to the Animal People and to the Spirit People is reciprocal. Where I come from, God who is the woman is not Mother Earth, but Grandmother Spider. We don't call her Mother Earth. We call her *I-yati-koooh* or Corn Woman. Before her, in the beginning, there was Thought Woman; she had two medicine bundles, and in each of these bundles was a woman, a spirit, a god. And each of these God women had sacred bundles. And the Spider sang them into life. She's not their mother. She's their sister! It's about sisters. Into *their* bundles, they sing the heavens, the firmament, the languages, the mountains, the rivers, and all that into being.



I think the white man's rage against the Indians is against this female force. I've never believed it was for land, because there's too much land still not being used. And I don't think it was about money because the Indians didn't want the gold. I think it was all the powerful women we had; their connection with the gods and the spirits just scared the bejeezus out of the whites.

But for us it's not just reducible to gender. Gender has to have a multiplicity of parts because the universe is multiple. There are never just two stars or two planets. There are probably millions of genders. I can only think of a few because I'm not as big as Grandmother is, I'm just not as smart as she is. The people who have congress with spirits don't think that pregnancy comes about as a consequence of fucking, for example. They figure there has to be something else

People say "New York City? Yuk!" But New York City is utterly beautiful! And it's especially beautiful when you realize the cockroaches made it. Grandmother dreamed. Who am I to say "Grandmother! You shouldn't have!"?

going on because a woman doesn't get pregnant every time she has sex: a very rational position in a way.

THE MAGIC I KNOW is about medicine and ritual. Nothing goes on that's economic, political, or material because there's really no such thing. That's a white fantasy. It's about the power to sing, the power to make. Spider Woman is the only one who can make. We make what she lets us make. If we sing and if we walk in a balanced way, we can make sacred, which is to remember that it's all about the Spirit. I'm not making much sense in English, am I?

In the only depiction I've ever seen, she looks like a hawk with a woman's face. She created everything: architecture, social systems, religion, human relationships, language. You name it, she set it out. And there's a sense of affection and love.

When you use power you're using her power because that's the only power there is. Political and economic power come about as a consequence of spiritual power. The word *magic* sounds bad but it's more accurate.

She lives in Shepop, the place of origins. It's like the underpinnings of the universe where the Four Rivers come together, the four rivers of life. Doesn't it all sound Celtic? Don't ask me how everyone comes up with the same system. There's two possibilities. One is what what anthropologists call "spontaneous diffusion," and the

other is that they're all talking about the same reality.

My house here. I got my house because Grandmother gave it to me. Not because I was a good girl, and she wanted to be nice to me. It doesn't work that way. I think I'm doing all these things that are my bright idea, but they're hers because she dreams.

Sounds like predestination, but where I live everything is fluid. It's all constantly forming and reforming and dissolving and resolving all the time. It's always open-ended. Because Spider dreams. She advises *I-yati-koooh* and *I-yati-koooh* tells the Elders and connects them and the people, like the body of the spider connects her six legs. Hard to explain but if you listen to how your heart works and how your throat knows, then you know what I mean. It's like cooking dinner. There's something in the hands, in the eyes. It's very practical magic. You don't need to go dance under the stars and howl under the moon. Where I come from you take care of the seeds, you cook the meals, you make some pottery, you take care of the kids, you gossip with your friends. But you never forget where you are and what it is that you're doing. You're always attentive. If you live that way, then everything'll go along fine. And if you don't it won't. What does fine mean? It means you have peace in your heart. It doesn't mean you don't get old or you don't have pain, it doesn't mean you don't die. It just means that your heart is peaceful.



Pleasure is terribly important. You can't walk in balance if you're miserable. If you're torturing yourself, you're miserable. And if you're miserable, you're making the planet sick.

Americans want peace in their hearts, but tend to think that means a VCR. You have to walk in beauty. There's beauty everywhere around me all the time. For example, people say "New York City? Yuk!" But New York City is utterly beautiful! And it's especially beautiful when you realize the cockroaches made it. Grandmother dreamed. Who am I to say "Grandmother! You *shouldn't* have!"? Grandmother is telling a story. And her story has Oakland and New York in it. And she gets a big kick out of it.

You have to respect her, you have to care for yourself and you have to care for your people. Your people are your people by blood and also whoever's around you at the moment. That's your job. You have no choice. Well, you could choose not to do it, but you're going to be miserable, and most human beings don't want to be miserable.

White people have always thought of Indians as stupid. Maybe it was our uncritical acceptance of what is. "Here's rain! Okay!" "Here's drought! Okay!" It's not uncritical. We have a lot of deep intense conversations. You can discuss but you can't complain. You maintain a friendly calm demeanor no matter what is going on.

You're not beautiful in your heart when you're in conflict. Think about it. Western Civ thrives on conflict. Every story, poetry, every advertisement is about conflict. We want a lot of intensity, but this is not for the Lagunas.

I think of Grandmother Spider as

old but not aged. The term "Grandmother" connotes respect because she knows something that I don't know. Trees are grandmother and grandfather because they're really old and they know a lot. And a lot of the animals are called grandmother and grandfather. This is very different from the Western view, where we say animals are dumber than us and we should just forget plants because they don't have any intelligence at all!

WHERE I COME FROM rocks are smart. It reminds me that I'm not very smart. We're the youngest. We don't know anything. It's important to be respectful because survival as a community and as a people depends on knowledge. Mind you, Indian systems are about information. They love information. Pueblo culture is about intelligence.

Without knowledge we can't interact, can't walk in beauty and maintain balance, because beauty is the fact! The earth, the universe, the galaxy are beautiful. Their fundamental identity is beauty. If you walk in beauty, you know who you are. And if you're not in beauty then you're sick.

She has this weird sense of humor. She likes to make stories, and she likes to make jokes, and she likes to complicate things and she likes people to act silly. She also likes them to act respectful, but basically she just has a heck of a good time. And that's important. You can't be alive if you're not having a good time. One thing about the Goddess

movement that makes me a little nervous is that it's all so blooming *serious!* You can't walk in beauty if you don't laugh and have a good time.

The Earth is alive and it's a she alive and she is very smart and she loves us and she wants us to love her. And loving her means taking care of your garden or loving your children or going upstairs and taking a wonderful bubble bath so that you will feel good. That's what matters. Pleasure is terribly important. You can't walk in balance if you're miserable. If you're torturing yourself, you're miserable. And if you're miserable, you're making the planet sick. That's why you have to stay peaceful in your heart: if you're negative you're making her sick. If you want her to get well, then you have to get happy. ♦

Grandmothers of the Light

I am always very pleased when the native Americans get fair representation, a voice of their own. Enough of the Wannabe Indians and their account of how they as white people were chosen to be trained by the Indians and why they now wear eagle feathers in their hair and give expensive workshops to other whites.

Paula Gunn Allen, a mixture of Pueblo, Sioux, and Lebanese, introduces us to the female side of the native American pantheon: the magnificent Xnucane, Sky Woman, Six Killer, White Shell Woman, Thinking Woman (who thinks up the entire universe), and Changing Woman (the symbol for our times). The stories are authentic and sometimes shocking as true myths often are; they deal with death and transformation, rebirth, balance gathered together like wildflowers from the Cherokee, Navajo, Aztec, and Maya. A fine read.

—Z Budapest

■ The basic nature of the universe of power is magic: the name given to the practice of a mage. *Ma* (the *m*-syllable again) comes in variants: *ma*, *mo*, *mu*, *mi*, and *me*. All are versions of the same morpheme (syllable with meaning) and refer one way or another to the Great Mother or Great Goddess of the Indo-Germanic tradition. The

Spider Woman's Granddaughters

Traditional tales and contemporary writing by native American women; many voices retelling the stories they grew up with. Titles like "A warrior's daughter," "The woman who fell from the sky," "Blue Bird's offering," "Coyote kills Owl-woman." The language is contemporary, the characters are magical: a chipmunk who comes alive when a half-ripe ol-lala berry is placed in its breast and Owl-woman steps over it; the dead father who tells his daughter who to marry. The stories celebrate honor and obedience and being smart, but they are also often humorous.

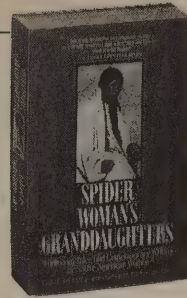
The seventeen women contributors represent a wide variety of tribes. Another fine read for those of us with an interest in the native American magical traditions. —Z Budapest

■ A woman won that fight, and the men never tell about it. There was shooting by the time my play-lodge was pitched. A

Lacota bullet struck one of its poles, and whined. Arrows were coming among the lodges, and bullets, when Corn-woman carried me to my mother, who made me lie down behind a pack. I saw what went on there.

Several horses were wounded and were screaming with their pain. One of them fell down near my mother's lodge that was not yet half pitched. Lying there behind that pack I did not cover my eyes. I was looking all the time, and listening to everything. I saw Strikes-two, a woman sixty years old, riding around the camp on a gray horse. She carried only her root-digger, and she was singing her medicine-song, as though Lacota bullets and arrows were not flying around her. I heard her say, "Now all of you sing, 'They are whipped. They are running away,' and keep singing these words until I come back."

When the men and even the women began to sing as Strikes-two told them, she rode out straight at the Lacota, waving her root-digger and singing that song. I saw her, I heard her, and my heart swelled, because she was a woman.



Spider Woman's Granddaughters

Paula Gunn Allen, Editor. 1989; 279 pp.

\$12 (\$14 postpaid) from Random House/Order Dept., 400 Hahn Road, Westminister, MD 21157; 800/733-3000 (or Whole Earth Access)

The Lacota, afraid of her medicine, turned and ran away. The fight was won, and by a woman.

■ **J. C. Penney blanket:** Cotton blankets that are thin but large so they can be folded into layers good for insulation against heat or cold. Many times they are pastel and white plaid. Taos men wear them wrapped around their bodies and heads in a way that reminds me of Bedouin men's way of wrapping themselves.

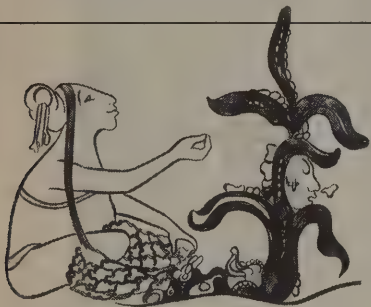
■ We are coming around a bend and ahead of us is a young aspen, standing in a small clearing. "Look, Grandmother."

I take careful aim and pull back the small leather piece which holds the seed. I am really using all my strength to pull for I am shaking. The black inertube rubber is being stretched closer and closer to my face. I can see the tree so clearly! Now I am ready. I let go. My whole body is tense as I strain to hear the seed hit the tree.

"Yes, my Granddaughter, you are good. You hit the tree right where you aimed," Grandmother tries to comfort me. But it is no use. No matter how soft or tender her voice may be, she cannot comfort me.

"I didn't hit the tree, Grandmother." The muttered words come out in a whisper. My voice is hoarse. I'm going to cry. I so much wanted to impress my Grandmother, but I failed. She will never know that I really am good with my slingshot.

Grandfather hears my whimpering and says, "My Granddaughter missed a tree today, but there will be a day when she will not miss. It will not be just for you, but for the both of us. It won't be a tree. It will be much more important than that, dealing with life."



Goddess, named variously Ma, Maa, or Maat, was in time demoted and even changed gender over the ages, but she is known even today in her identity as Tiamat, Aphrodite, Ishtar, Astarte, and Isis. She can be discerned in words such as mother, mom, mammary, mutter, *immic*, *om* (a cognate of *mo*) and related concepts such as *mer*, *mal*, and *mar*, which refer respectively to the sea (modern French), evil or disorder (modern Spanish and English as a prefix), and light or nobility (modern Arabic, meaning "lord"). *Ma* is the essential female syllable, *om* being its masculine variant, and at its root designates mystery, mother, and myth, all feminine forces or powers.

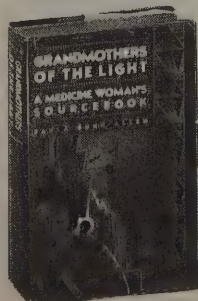
■ Only recently did it occur to me to wonder where the idea of vast distinctions among Native Americans had originated. I mentioned my query to an Indian friend, who looked at me with a grin and quipped, "From the anthros."

To many native people, anthropologists represent a number of things, including colonialism. Many native people see them as a sort of contemporary colonial front, following in a line that descends from soldiers and missionaries through Indian agents and traders to academics, anthropologists, folklorists, and most recently, literary specialists like myself. This front operates analogously to the other arms of the colonizer, coming in and taking human remains along with spiritual and aesthetic treasures as the others have helped themselves to economic and geographical ones.

Grandmothers of the Light

Paula Gunn Allen, 1991; 246 pp.

\$19.95 (\$22.70 postpaid) from Beacon Press, 25 Beacon Street, Boston, MA 02108; 617/742-2110 (or Whole Earth Access)



Lara Owen's article on menstruation (WER #71), and the comments we have received in reaction to it, started us thinking about other kinds of knowledge that have been orally transmitted from mother to daughter, but that have not found their way to print.

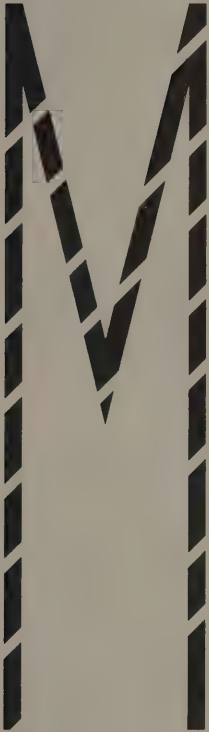
When I mentioned on the WELL that we were eager to hear from women around the world regarding female wisdom traditions in their cultures, I heard from a person who logs in regularly from Australia. Tim Dalmau is an organizational psychologist, consultant and author who lives with his family in the Samford Valley near Brisbane, the capital city of Queensland. As an introduction to his interview with Alice Kelly, Dalmau describes the outlines of aboriginal spiritual beliefs.

—Howard Rheingold



Aboriginal Wisdom, Aboriginal Rights

BY TIM DALMAU



MUCH ABORIGINAL MYTHOLOGY is contained within “dreamings.”

A dreaming is a myth from the Dreamtime and a way to bring to waking consciousness the nature of the universe through the use of story. The notion of aboriginal dreaming contains information not just about the past — it also contains the present and the future. This body of secret wisdom is orally transmitted and includes sacred sites, stories and ceremonies.

One way many aboriginal groups give expression to their own creation mythology is through dreaming trails. These are drawings that tell the story of the dreaming to those who can interpret it. They tell the stories as if they were viewed from an aircraft or plane: circles in such drawings often represent sacred sites, water-holes or campsites, and the stories are usually of journeys taken by mythical creatures.

The act of drawing the dreaming is sacramental or liturgical in nature. It is also educative in that children are taught the relevant creation mythologies through the painting, the story, and the associated rituals. The elements of the drawings are highly symbolic in their nature.

Each dreaming can have multiple meanings and serve multiple purposes in its telling. But the stories are both sacred and secret to the people. Some of the surface meanings may sometimes be allowed into the public arena, but the real knowledge, the real wisdom, the real “knowing” is a profoundly secret and sacred phenomenon. This is true for both aboriginal men and women — it is what gives them their identity.

The plight of indigenous peoples has been brought much more into focus in the last few decades, not just in Australia but around the world. There has been enormous pressure on federal and state governments in Australia to seem to be doing the right thing, especially since Australia has been so vocal in its condemnation of South Africa over the last two decades. A major area of social and political activity concerns land rights.

(I can't help thinking, as a psychologist, that we as a nation have indulged in one enormous long national projection — we have manufactured righteous indignation, and even outrage at times, over apartheid; in so doing we have been able to conveniently avoid facing some of the tougher questions about whites' relationship with and treatment of aboriginal people at home. In Jungian terms the "sins" of which we have accused the white South Africans are an expression of our own national shadow.)

Most health and economic indicators clearly suggest that aboriginal people are comparatively worse off. They have vastly lower life expectancies than whites; few or no employment opportunities (unemployment rates of 60 percent are not

uncommon in some aboriginal communities); lower access to running water, sewerage and the like — and consequent higher rates of severe malnutrition, respiratory infections, skin infections, diarrhoea, trachoma, diabetes, etc.; drastically higher imprisonment rates. Many aboriginal people live in very poor conditions and have little personal wealth by comparison with the rest of the Australian community.

The figures in these areas place the external quality of Australian aboriginal life on a par with the underdeveloped countries of the world. They are a source of much international condemnation as a result.

IT WAS ONLY IN 1967 that the Australian Constitution was changed by national referendum

to allow aboriginal people to vote, and to enjoy many other privileges of a democracy that whites had taken for granted. Before this, they were virtually non-people under the law of the land.

Prior to the whites' arrival 200 years ago, the culture and heritage of aboriginal people were profoundly connected with the landscape. The environment was an integral and personal part of their psyche, both as individuals and as groups. The land is the psychological, social, mythological, and spiritual home, in a manner and to an extent beyond the comprehension or concern of most white Australians. Social relations among aboriginal groups and the land were mediated through group membership, and relations between groups were seen

Voices of the First Day

Australian Aboriginal culture is about everything in the imaginal realm and everything in the natural environment. Dreams and springs, states of consciousness and natural cycles, spirituality and survival lore are inextricably connected with one another. If you harbor even the slightest suspicion that Aboriginal culture is "primitive" because these people reject agriculture, architecture, writing, clothing, and animal domestication, this book will awaken you.

Author Robert Lawlor has compiled the best of what the Aboriginals have let outsiders know about their ecological and shamanic practices, origin myths and kinship rituals, social and spiritual practices. The illustrations are spectacular; more than 150 color and duotone illustrations include some of the earliest photographs of Aboriginal people, shown here for the first time.

A portion of the proceeds from sales of *Voices of the First Day* will go to Denooch Aboriginal Healing Centre and South Australian Earth Sanctuaries. The Healing Center assists Aborigines in using tribal healing methods to cure alco-

hol, drug, and tobacco addiction. Earth Sanctuaries provide a home for Australian endangered species.
—Howard Rheingold

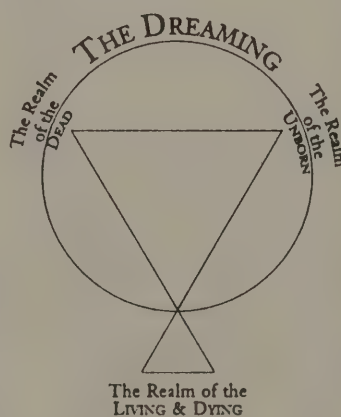


FIGURE 99
The three realms of Aboriginal cosmology and their relationship to the all-pervasive Dreaming.

All creatures — from stars to humans to insects — share in the consciousness of the primary creative force, and each, in its own way, mirrors a form of that consciousness. In this sense the Dreamtime stories perpetuate a unified world view. This unity compelled the Aborigines to respect and adore the earth as if it were a book imprinted with the mystery of the original creation. The goal of life was to preserve the earth, as much as possible, in its initial purity. The subjugation and domestication of plants and animals and all other manipulation and exploitation of the natural world — the basis of Western civilization and "progress" — were antithetical to the sense of a common consciousness and origin shared by every creature and equally with the creators. To exploit this integrated world was to do the same to oneself.

The Dreamtime stories extended a universal and psychic consciousness not only to every living creature but also to the earth and the primary elements, forces, and principles. Each component of creation acts out of dreams, desires, attractions, and repulsions, just as we humans do. Therefore, the entrance into the larger world of space, time, and universal energies and fields was



in terms of relations between territories. The sacred attachment to land provided aboriginal people with an extremely strong and rich social order. The loss of land to whites destroyed more than a subsistence base — over the last 200 years, it has ravaged the very social fabric and organization of aboriginal life.

The intimacy of aboriginal people with land is carried in their conception and ancestral totems. The conception totem charges individuals with caring for the land in which they are conceived, and caring for the animals and plants on that land. The ancestral totem of each individual links her to the activities of the Dreamtime beings who left their marks on the earth as tangible reminders of their presence.

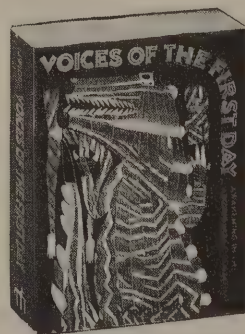
Consider the process of claiming land rights by an aboriginal group. As part of making their way through the labyrinth of white people's laws, aboriginals pay a very high psychological and social cost for securing rights to particular pieces of land. They often have to disclose, to a white commissioner for land rights, information about their totems, their dreaming trails, their songlines, their dreamings — secret, sacred and core elements of their cultural identity. That is, in order to reclaim their own psychological home (the land), they have to give up a lot of the sacredness of their own mythology. The mythology is what has kept them strong for at least 60,000 years — its public disclosure is what leads them to feel weak and dying.

the same as the entrance into the inner world of consciousness and dreaming. The exploration of the vast universe and a knowledge of the meaning of creation was experienced through an internal and external knowledge of self.

Every land formation and creature, by its very shape and behavior, implied a hidden meaning; the form of a thing was itself an imprint of the metaphysical or ancestral consciousness that created it, as well as

the universal energies that brought about its material manifestation. These aspects of the Dreamtime creation myth imply a world in which the metaphysical and physical are held in symbolic integration. One cannot consider the visible and invisible worlds separately. The Aboriginal languages that emerged from this world view are rich in a metaphoric flow integrating physical, psychological, and spiritual levels of experience.

Fire Ceremony, Central Australia. In Aboriginal ceremonies of ecstatic abandonment, the restrictions of the social order are temporarily ignored.



Voices of the First Day

Robert Lawlor, 1991; 412 pp.

\$24.95 (\$27.70 postpaid) from Inner Traditions International, c/o American International Distribution Corp., 64 Depot Road, Colchester, VT 05446; 800/445-6638 (or Whole Earth Access)

Alice Kelly is a 73-year-old aboriginal woman and an elder of the Mutthi Mutthi tribe from the Lake Mungo area. She grew up in Balranald in southwestern New South Wales. Until recently, the Lake Mungo area had been supposed to be inhabited by aboriginal people for 45,000 years, but Rhys Jones of the Australian National University in Canberra has recently published evidence that suggests it has been inhabited by them for about 60,000 years.

Kelly received the Aboriginal Of The Year Award in 1988. She is a strong advocate for the promotion of aboriginal culture and heritage. She speaks her language fluently, and although she is now a great-grandmother, she actively promotes aboriginality through radio and television, film, writing and committee work. Alice Kelly can be contacted by writing to P. O. Box 133, Balranald, New South Wales, Australia 2715. Tel: 61-50-201-549.

—Tim Dalmau



My Place

There is a Buddhist saying that goes something like: "Before enlightenment there is much carrying of water; after enlightenment there is much carrying of water." It evokes an image of the sacred co-existing with and embedded in the profane and the ordinary — much that is sacred and beyond words is to be found in the ordinariness of the everyday. This book is a wonderful testament to such wisdom, as found in the lives of three generations of West Australian women.

Sally Morgan's family had told her throughout her childhood in Perth that she was of Indian descent. In fact, Sally is of mixed aboriginal-white descent; at about the age of fifteen, she realizes her grandmother may be aboriginal. It is another seven years before her mother finally confirms this.

Sally sets about writing the stories of her family — her mother's, her grandmother's and her granduncle's. This task involves, among other things, returning to

her grandmother's birthplace in remote northwestern Australia.

Sally Morgan's trek is a journey into the past to recover echoes, hints and clues about hidden history and identity. It is a journey that criss-crosses Australia as she seeks information. Most of all it is a journey into herself as she seeks wisdom through the truths about her family's past. Someone great once said, "The truth will set you free." Such seems to have been the case for Sally Morgan.

—Tim Dalmau

• The Silver Chain sister visited that afternoon. As I saw her to the door, she said, 'Your grandmother's changed. I think she's decided to die.'

'She has', I agreed. 'It won't be long, now.'

She grasped my arm and looked at me with pity in her eyes. 'You're wrong, dear', she said, 'I've seen this happen before many, many times. They give up the will to live, but they don't die, because their bodies just won't let them. She has a very strong

heart and a good pulse. It could be weeks.'

'That won't happen with her', I replied confidently. 'She'll be gone soon.'

The sister shrugged her shoulders sympathetically. 'Don't count on it, dear, you'll only be disappointed. There'd be a chance if her pulse was weak, but it's not. I think you should face up to the fact that this could go on for quite a while.'

The following morning, my phone rang very early.

'Hello', I said as I lifted the receiver.

'I heard the bird call.' It was Jill's voice.

'What bird call?'

'This morning about five o'clock. I heard it, Sally. It was a weird sound, like a bird call, only it wasn't. It was something spiritual, something out of this world. I think she'll be going soon.'

After breakfast, I hurried over. There was an air of excitement about the place. The heaviness that we'd all been living under seemed to have suddenly lifted.

Mum was mystified about the bird call. I

Alice Kelly:

WE ARE LOOKING into the sources of our aboriginality now, and we are beginning to realize that people make a lot of decisions that affect us without any regard to our culture or our heritage. We feel we have missed out on a lot of things as a result.

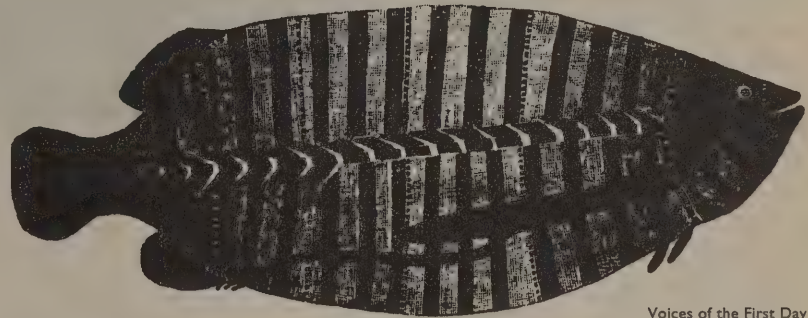
Journalists, politicians and bureaucrats come and talk to us but the stories they tell are different to what we say to them. They don't include in their stories what we want to say about our people. I know from my heart and soul, and in the heart and soul of all aboriginal people, that we must have that voice — the voice of aboriginal people — heard.

We miss out on so many important things, especially those that are relevant to any white organization. We have no voice. We are getting nowhere fast as a

people. We should see that the laws are in place and are followed. With land rights, with compensation, with our land, we are made to fail, for we have people who speak on our behalf; we don't get to speak for ourselves, and we are disregarded in everything we say. We don't get to speak to the people that matter in government about our culture and heritage, and when our voice is heard through others it is distorted and disregarded. We feel very, very strongly about this as women and as aboriginal people.

As aboriginal women, we can help Australians see more clearly the discrimination that is still everywhere, even today: the lack of equal opportunity, the complete inadequacy of health, welfare and education services, land rights, title deeds, compensation and employment. These are things which are dear and close to the heart of all women, especially aboriginal women.

We are currently seeing our heritage and our culture go down the drain. There is so much we are losing. We are



Voices of the First Day

think she felt a little left out. Jill couldn't understand why Mum hadn't heard it, it'd been so loud and gone on and on.

When I walked into Nan's room, I couldn't believe my eyes, she didn't look sick any more. Her face was bright and she was propped up in bed, smiling. Something had definitely happened, but none of us knew what. Even Mum and Jill were happier and bustling around like their old selves.

'Nan, you look really good', I said in surprise.

'Feel good, Sal.'

I just stood there, smiling. She seemed so contented. Almost like she had a secret. I was desperate to ask her about the call, but I didn't know where to begin. I sat by the bed and patted her hand.

Just then, Mum popped in. 'Doesn't she look well, Sally', she said happily. 'Look at her face, it looks different.'

'Sure does.'

'Get me some toast, Gladdie', Nan said cheekily, 'I'm hungry'. Mum rushed out with tears in her eyes.

'Nan', I said slowly as she looked at me, 'about that call, you weren't frightened when you heard it, were you?'

'Ooh, no', she scoffed, 'it was the Aboriginal bird, Sally. God sent him to tell me I'm going home soon. Home to my own land and my own people. I got a good spot up there, they all waitin' for me.'

A lump formed in my throat so big I couldn't speak, let alone swallow. Finally, I murmured, 'That's great, Nan . . .'

Mum popped back in with tea and toast. 'Bout time', Nan chuckled. She ate a little and then lay back. 'Think I'll sleep, now', she sighed. We tiptoed out.

'Tell me about the call again', I said to Jill.

Jill's face was a mixture of fear, amazement and triumph as she described to Mum and I what happened.

'Wish I'd heard it', sighed Mum

'Me too', I said enviously.

Later, I whispered to Mum, 'You know, Jill must be very special to have heard that call'. Mum agreed. We both wondered what Jill's future held.

Nan had a very peaceful day that day. A happy day. The intense feeling that had surrounded our house for so long was gone, replaced by an overwhelming sense of calm.



My Place

Sally Morgan, 1987; 358 pp.

\$9.95 (\$11.45 postpaid) from Little, Brown and Company/Order Dept., 200 West Street, Waltham, MA 02154; 800/343-9204

losing our assumptions of our aboriginality, our Christianity, our humanity. It is all in there together, it is a broad spectrum and we are losing it all. It is the core of us and it always will be.

We look for these things from our ancestors and they are becoming distant and lost to us. We see ourselves as dying — there is no way we can fix them. We might be able to fix them if we were united, but we are losing to alcohol, drugs and petrol sniffing.

If we could do things proper, if we could do them our way, the aboriginal way, then there would be more love, there would be peace and there would be much more harmony. Without love for one another you've got no peace, without peace you've got no harmony, and without harmony you've got conflict. It is so sad because we can't get this message across to *our own people*.

At the moment the move to give us land rights by the government is just propaganda; you can't believe it, it's just the propaganda of bureaucrats. And meanwhile we are sacrificed with no real medical care, our people are dying of drugs, alcohol, and glue sniffing. It's all together, it all comes under the one thing. The sickness in our children should never have been. I look at all this and I see not only the massacres of our people 200 years ago, but the massacre of our people here today. It's not with guns and bullets any more; it's now a massacre by alcohol and drugs; it's a silent war.

They throw money upon money at us, but there is no proper supervision. You know if we have been here forever, then as a people we should be built up, we should be honored, we should be walking tall — going



Voices of the First Day

Kangaroo Dreaming. Before and during the physical appearance of an animal species, the Aborigines image an energetic

field, which is regarded as the spirit or Dreaming of that species.

Healing the Wounds • Reweaving the World

These anthologies on ecofeminism are equally valuable. A core group of thinkers is represented in both books (Spretnak, Starhawk, Griffin, Plant, Kheel, Shiva, Bagby, King), but they address different facets of their interest in this mysterious new movement in each book.

Reweaving the World is based on the proceedings of a 1987 conference on ecofeminist perspectives. *Healing the Wounds* is bioregionalist Judith Plant's generous sourcebook on "the Promise of Ecofeminism." In *Healing*, selections by women indigenous to Plant's region disclose that the book emanates from a specific place. Diamond and Orenstein, editors of *Reweaving*, are academics; their sensibility seems more urbane.

Each volume contains fine and startling pieces, like Grace Paley's exquisite introductory tribute to Rachel Carson and Lee Quinby's anti-ideological "Ecofeminism and the Politics of Resistance" (in *Reweaving*), and Anne Cameron's "First Mother and the Rainbow Children" and Sharon Doubiago's wiseass "Mama Coyote Talks to the Boys" (in *Healing*).

The mystery of ecofeminism is its boundlessness and protean quality. The point is to change your life and change the dominant culture's relationship to Life. These anthologies will acquaint you with many of the voices now speaking for the Other in passionate, unsettling tones. —Stephanie Mills

■ The force necessary to maintain power is not acknowledged. But power means control of physical survival — income, jobs, homes, education, food . . . When acting alone, people dependent upon those in power cannot afford to alienate those in power. Therefore, the exploited, dehumanized, trivialized, and dispossessed are forced to live hypocritically — thinking one thing and saying another.

Everyone has experienced this dual reality in the workplace when they say or do what they need to for the boss, despite what they are thinking. If they were to say what they thought, it would only get them in trouble. This gives rise to a dual reality which creates the subjective climate that holds power in place: the visible one for which there is supposedly a social consen-

to school, being educated, coming out as doctors. But instead we have no voice, we are disregarded.

Growing up in the Balranald area, so close to this ancient area, I learned so much from the old people. They were times when we lived by the law of the land, but the laws are different now. We must not lose our old laws and old ways; as women we are trying to hang on to them. We need to keep them because today's laws and values are very weak. There is no future for our people with weak laws and I am very, very sad about it all.

We are seeing the death of a culture. Without that culture, without our heritage, I see it as susceptible to evil. Whites should be lifting people like us right up, but they are not.

It is a very sad thing for aboriginal people to have to say they have no heritage. We had our heritage until 200 years ago and then our land was stolen, our heritage was taken from us and our culture was stolen too. We are part of a tribal culture that goes back forever, we are affiliated with the land and with the laws, and now that is all going. I see it as a national tragedy of immense size for us.

We need the voice of aboriginal women to be heard among all women of the world, we need them to understand that "united we stand, divided we fall." This is the core thing that needs to be heard — it doesn't so much matter about the detail. We need the support and help of women from all over the world, we need it now, we need it in very practical ways.

I have seen a lot of suffering in my years and I have become aware of a power greater than us. It comes from our ancestors. I believe God was our ancestor, He made our laws. Those laws are still there today. This is where I draw my power and my life from, and it is very reassuring, it is a very spiritual place. That spirit is something we are born with. Our spirituality is in our blood. Our spirituality comes from our ancestors through our blood.

My time is running out, and all this needs to be seen and heard by others. It needs to be exposed, for all aboriginal people. We are such an emotional people. We are a very close people and a very emotional people. We are also very vulnerable to exploitation by others. ❖

• sus, and the invisible one, which is the experience of those who, in any given situation, are locked out. As a condition of oppression, their sense of self is perpetually inside of their own minds. *The power struggle gets relegated to the realm of the subjective.*

• The holistic tradition out of which herbal healing evolved honored not only the power of the body to heal, but that of the mind (or spirit) as well. Prayer, chants, incantations and other forms of ritual frequently accompanied both the preparation and the ingestion of herbs. Often, such ceremonies were seen as essential components of an herb's divine power, without which the healing process could not occur.

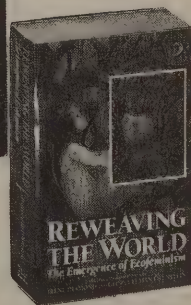
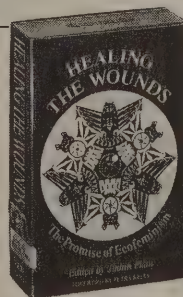
Healing was associated, in the early matriarchal cultures, with the life-giving capacities of women. The two main goddesses of healing, Hygea and Panacea, were also the names of the Great Goddess's milk-giving breasts. Our own word "nurse" carries this age-old association with women's life-giving, nurturing powers.

For most of human history, lay women healers have seen nature as their ally.

Working with the substances of the earth and the body's own healing energy, they have sought to fortify health, not attack disease. Lay women healers have prepared ointments, poultices, herbal teas and baths to relieve pain and to help restore the body to health. They have provided contraceptive measures, performed abortions, and eased the pain of labor. They have washed sores, set bones, massaged painful joints, and performed rituals and prayers. For many women, knowledge of herbal preparations has been as common as is the knowledge of cooking today.

Just as herbal healing rests upon a holistic world view, modern drug-oriented medicine derives from dualistic ideas. Whereas the holistic perspective honors the healing energy of the body and of the earth, modern western medicine is founded upon a distrust of nature and nature's power to heal. The history of western medicine is that of a long protracted struggle to conquer and subdue the vital force of nature; it is the attempt to render her inert.

—*Healing the Wounds*



Healing the Wounds

Judith Plant, 1989; 276 pp.

\$14.95 (\$17.45 postpaid) from New Society Publishers, 4527 Springfield Avenue, Philadelphia, PA 19143

Reweaving the World

Irene Diamond and Gloria Feman Orenstein, 1990; 324 pp.

\$15 (\$18 postpaid) from Sierra Club/Store Orders, 730 Polk Street, San Francisco, CA 94109; 415/923-5500 (or Whole Earth Access)



TAWNEY'S CAVE: Blacksburg, Virginia

With the women's college Outing Club

PROLOGUE

We're all in karst. That's pitted land:
shafts and sinkholes, water,
long alleys with no way out. *Karst* —
the consonants of rheumy throat-clearing
or someone cursed. Like
Christ, or Kurtz.

THE DESCENT

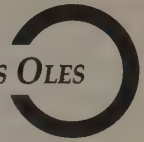
We enter down the sinkhole with sides so steep
we have to ski, traverse the slope.
Like motes, we drift into the yawn
and stand in twilight.
Moving deeper, still seeing our way,
I turn. The sinkhole wall cross-sections earth,
roots ripped and jutting. Where the moon should
hang, tree branches throw a snare.
A few feet down, and then no sky.
A wedge of light on rock, like memory:
Grandpa's cellar and the slanted door,
slamming overhead.
I see water not stopping
at my neck, me flailing, no ark.

WITHIN

Leaning back against the angle of precipitation,
slow-motion we advance on grease.
Our bodies signal caution while the headlamps
roll round welcomes out before us.
We find a millipede, and spotlight every
segment's roseate pearl,
that steady progress on thirty pairs of legs.
Too close overhead hang sleeping bats.
We swerve our lights, our body heat away.
If waked too soon, they'll starve.
Then, headlamps off, we see
black velvet where our hands are raised.
Our words are blotted up. Only water speaks,
a measured leak. This is how time sounds.

Above us, once-rushing currents have carved
Art Deco swirls in limestone.
In utero, I must have seen
the red dome of my mother,
heard the hymn of blood through veins.
I gaze here like the first explorer

BY CAROLE SIMMONS OLES



but farther on, fingers have touched the tarry walls,
stripped their dew, a firmament.
The oily messages can never be erased:
Fred and Sue. 1966. Eat shit.

BALANCE


Down further: wetter, muddier.
Where we have to ford the stream
the far shore rises, a beginner's slope in freezing rain.
We need the other's hand as much as ours,
we plant her as if she were ourself.
Soon, we reach a pass so slippery
we go down on hands and knees along a ridge,
crawling to the steady drum of water,
and castanets: our hats against jutting rock.
We move one segment at
a time, strain to multiply our grasp.
The circle of our concentration three dim
holds ahead, we learn
complete attendance in this moment. All feeling
means shins and knees and clutch
along this ragged ledge.
Nothing happened, nothing will.
It only matters not now to fall.

BIRTH

Hoisting on women's arms like fins, scrambling
for a foothold, twisting torso for a slot
as toe-brace, balancing the other knee,
lower back jammed on mudslick walls, breath
too huge and ricocheting

I praise the knob to grope
and praise the floating hand that looms
before my lamp to drag me up
the last push of the bone canal.

So trust flattens the body against itself



Yoni Rocks
from *The Heart
Of the Goddess*
(p. 66)

to reach another dark.
In a niche, enshrined,
three Old Milwaukee empties.

THE RULER

Now space, with vaulted roof where,
patterned by the waters, a full moon sails.
A broad stream saves
the tubes where bat sopranos trill.

In pleated robes and grand indifference,
presides a Pharaoh fifteen feet tall —
each inch counts off a hundred years.
One last squeeze upward from this king
we stand amid subtropic vegetation,
stalactites like banana leaves,
a pearly pendant at each tip.
Along the walls, more wet constellations.
Our hands are steaming brews,
calories swirl in haloed light. But
someone's dared to cross the chasm,
break two thousand years of limestone off
to make himself a sceptre.

THE SURFACE

On my mother's tempered body
purple roads where they've gone in
for trophies or attached synthetics.

A pinhole shines far up, the eye
we climb towards from this heart
of broken stones, stars of dew fallen prostrate,
obscurest shelves proclaiming man.

John Muir wrote "*It is a good thing
even to creep like worms into dark holes
and caverns underground, to see
better what the sun sees on our return
to common every-day beauty.*"

Worming into sun glare,
squinting at each other's mud and sweat
we're wobbly, but we stand here where we can —
this one, precarious, female globe. ○

Thesmophoria's New Moon

The original newsletter of the herstorice Susan B. Anthony Coven #1, with Z Budapest a strong voice for the "new women's religion."

Thesmophoria's New Moon

Z Budapest, Editor.

\$9 — \$13/year (sliding scale);
8 issues. Women's Spirituality Forum,
P. O. Box 11363, Oakland, CA 94611

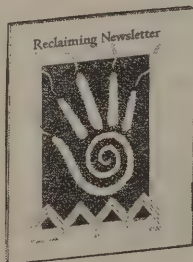
If I would describe my trip in terms of blooms, I would have to say, it started with the abundance of dandelions, which is my symbol for Women's Spirituality. You see, the golden dandelions have their roots underneath and above the ground, both consciously and unconsciously. This is how they network and propagate themselves. They fly their seeds over the air, like words, like thoughts. They cannot be killed for they come back stronger. They are good for you. Everybody benefits from eating them. They purify the blood, and they help the immune system. Dandelions provide iron and other minerals. They are very good to make witches garlands with. So what is going on with the Women's Spirituality movement in Europe? The Goddess Movement is very young, but it is growing faster than it did here when we (USA) were only five years old.

Reclaiming Newsletter

Open forum and activist newsletter. Starhawk is a frequent contributor. Lively and handsome.

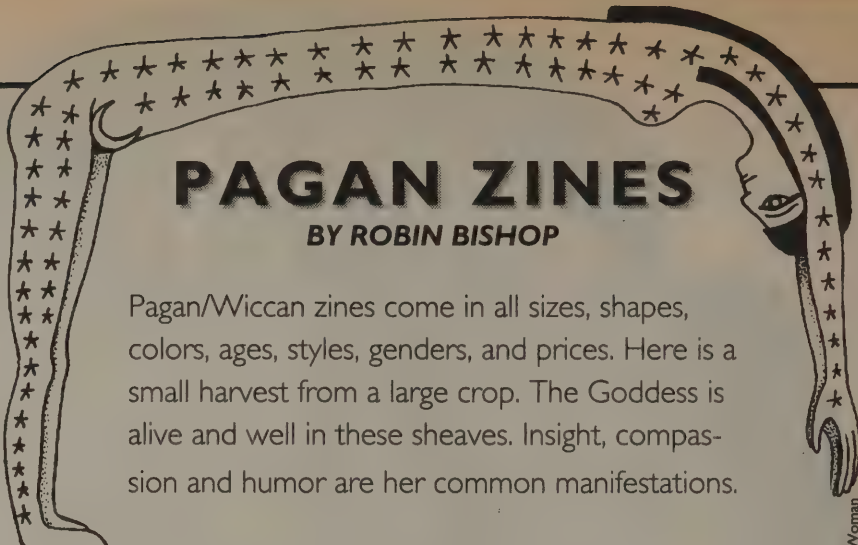
Reclaiming Newsletter

\$15/year (4 issues) from Reclaiming,
P. O. Box 14404, San Francisco, CA 94114



In the hierarchical culture around us, a high grade is better than a low grade, a high mood better than a low mood, a high floor of an office building more prestigious than a low floor. This is sky religion imagery — high is better. So is a high priestess a better priestess? A more talented, a more dedicated, a more holy priestess? Maybe she's a more powerful priestess.

To be a Pagan is to believe that the world of matter and form is sacred, that the body is a temple, etc. etc. We all know this. The



PAGAN ZINES

BY ROBIN BISHOP

Pagan/Wiccan zines come in all sizes, shapes, colors, ages, styles, genders, and prices. Here is a small harvest from a large crop. The Goddess is alive and well in these sheaves. Insight, compassion and humor are her common manifestations.

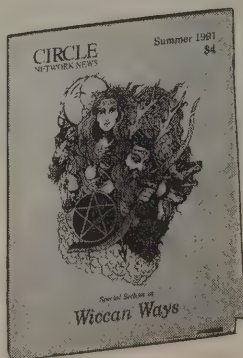
question then arises: so why don't we floss our teeth?

Circle Network News

Pantheistic, regional news and views from the conservationist Nature Spirituality Resource Center. Lots of green "meat."

Circle Network News

Dennis Carpenter, Editor.
\$13/year (4 issues) from P. O. Box 219,
Mt. Horeb, WI 53572



Arkie Craft

The traditional "cakes and ale" ceremony takes a new twist hereabouts. Instead of crescent-shaped cakes and wine or beer, we use Moon-Pies and RC Cola. This has long been a traditional mid-day repast in our smaller towns and farmlands, plus there are the obvious symbolic aspects of Moon-Pies, which we advocate as sacred to the Goddess.

Of A Like Mind

Tabloid for women "of a like mind" (able to do magic together); also offers a separate support network.

Of A Like Mind

Lynnie Levy, Editor.
\$13/year (4 issues) from P. O. Box 6021,
Madison, WI 53716

Why the Goddess?

The Goddess, who represents the universal Feminine Principle, is no more female than God is male. She simply represents a view of reality and a value system which has been largely discredited. It is a view of reality that is very satisfying to those more interested in creating and sustaining life than in exploring and controlling the universe.

With Winter Solstice coming, you might want to make a few poppets as gifts. Love dolls would also be appropriate, dressed in warm oranges, reds, or pinks, stuffed with rose petals and rose quartz, anointed with oil of rose and lavender.

The main task in this work seems to be the suspension of the cynical "adult" voice of reason that may attempt to argue such a "foolish" project. "We must put away childish things," this skeptical voice most often cries. But isn't magic at least a tenth part childish wonder?

Harvest

"The continuing saga of Pagan Place," which appears to be located in Massachusetts. Articles and news from all over — there's an interesting section on current events as seen through pagan eyes. Lots of funny letters too! [Suggested by Hudson Luce]

Harvest

\$15/year (8 issues) from P. O. Box 378,
Southboro, MA 01772

The car protection ritual has motivated me to put fingers to the keyboard.

I read the piece to my horses, and their initial reaction was much snorting and stamping of hooves. The very thought of being compared to a car was offensive to them, although the concept of being "prestige objects" did seem to hold a certain

appeal. . . They did request, however, that I put in a good word for them with the motorists of the pagan community who may not worship the literal incarnation of Epona.

If even half the things about Witches in [The Wizard of Oz] were true, it would be a pretty dismal life. None of us would ever be able to take a shower again, we'd all have to go around looking like we had a bad hangover or food poisoning, and I, for one, refuse to wear the pointy hat!

Many Pagans report to be disappointed in the overt Christian tone of Robin Hood, Prince of Thieves, especially after the wonderfully Pagan British TV series. While the movie did show Robin and a Muslim working to bridge their differences, it also contained an ugly witch who scryed by spitting into a dish of blood. (Children, don't try this at home . . .)

The 6/20 Sun Chronicle reported that Pamela Doyle Sciascia, a psychic and Witch, will be running for mayor of Salem.

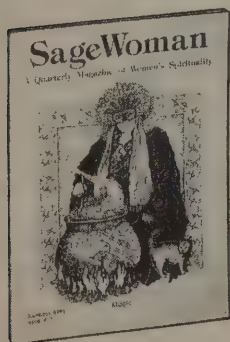
SageWoman

Women's spirituality magazine; the editrix is of the "Famous Priestess School."

SageWoman

Lunaea Weatherstone, Editor.

\$5.95 each (\$18/year; 4 issues) from P. O. Box 641, Point Arena, CA 95468



Many bleeding ceremonies have been published, but I know of none that mark eggng. If magick is about moving energy, this is the time. I can feel waves of it inside of me, rolling and boiling, as steam sizzles from my prickling fingertips. This is the full moon of the body — let's celebrate it!

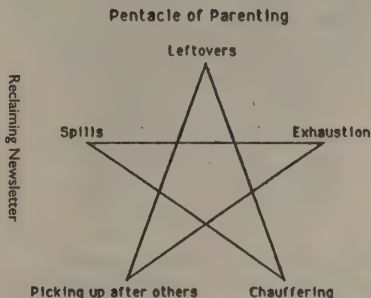
Demeter's Emerald

From Pagans for Peaceful Parturition. Pagan parenting and family life; very personal.

Demeter's Emerald

\$13/year (4 issues) from P. O. Box 612603, S. Lake Tahoe, CA 95761

I guess the key here is to begin giving the child a sense of family relationship with the Earth, Moon, Sun, Elements, etc. at a young age, so that as they grow you won't have to suddenly begin explaining why you're standing in the middle of a bog praying to the moon.



Covenant of the Goddess

Lots of insider's talk and official business of the Covenant, an organization of covens nationwide. A working Wiccan house organ.

Covenant of the Goddess Newsletter

\$20/year (8 issues); sample issue \$3 from P. O. Box 90304, San Jose, CA 95109

I was horrified to see a nasty song about one evangelist's encounter with Issac ten years ago, (titled "A Witch's Invitation"), Pat Robertson's ex-Wiccan-turned-Satanist expert and, later a prayer leader outraged at Witches who was possessed by "Spirit" and began telling, right on the air: "Burn them Jesus — Burn the Witches!!!" Also, one local county boasts that now all of their police Occult crime specialists are born-again fundamentalists and that this is a national goal of the Anti-Cult Awareness Network.

On being a modern-day witch on TV:

Finally, the half hour was up, and I was invited to play a few bars of my Psalm.

O Lady, Mother of all, the rolling flank
of Thee
The endless length of all Thy body
How Thou dost roll and flow . . .

That was as far as I got. In my ear blasted the concluding commercial, and on the screen flashed a visual with the words "down and dirty" superimposed. How appropriate, I thought to myself.

The bishop smiled continuously in a sanctimonious sort of way, explaining kindly that

"people of power" were not really powerful, especially when they said they were, and that magic performed by Witches was not really "spiritual energy". . . [A]nd likened my casting of spells to a misguided attempt to "perform surgery without the benefit of medical training."

H.A.M.

How About Magic? Offspring of Green Egg (a "mainstream" Neopagan magazine) by and for pagan youth. Did Dr. Seuss know?

How About Magic?

Zack Darling-Ferns, Editor.

\$7/year (4 issues)

Green Egg

Diane Darling, Editor.

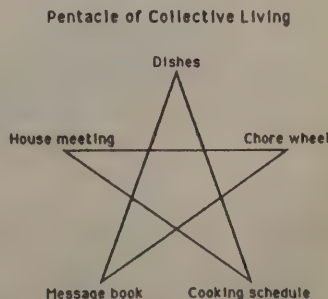
\$13/year (4 issues)

Both from P. O. Box 1542, Ukiah, CA 95482



Samhain (which is pronounced "sow-ahn" and means "Summer's End") is the Witches' New Year. At the Dumb Supper (a meal of underground foods shared in silence) we remember and honor people and animal friends we loved who have passed on to the Summerland. Is there a friend, family member or pet you would like to remember? If you like, you can draw their picture (or paste a photograph) in the Magic Mirror above.

There are many traditions of the Craft, enough for any person who comes into our religion to find just the right way to worship. The first mistake a person can make is to go into a tradition without looking around and seeing the many alternatives that are available. ♦



Food of the Gods • Experiment at Petaluma

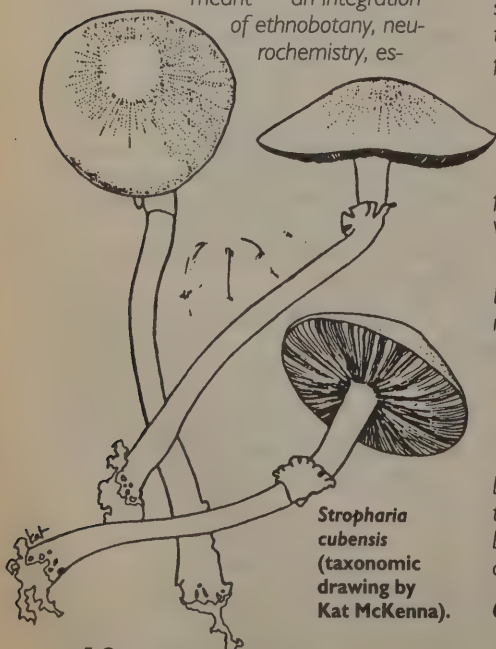


Our primate ancestors started talking because their omnivorous wanderings over the African savanna brought the species into intimate contact with hallucinogenic mushrooms. The original tree of

knowledge grew in cow dung; in low doses, it amplified visual acuity, and increased sex drive. In higher doses, the fungus triggered linguistic behavior. Humans and psychedelic plants are ancient symbionts. People all over the world have known that secret for a long time, and some carved it into stone or painted it on cave walls, but Western industrial culture pretends not to believe it.

That's the essence of Terence McKenna's rap, now a book. The first time I heard it, the story struck me as a myth that sounded like a theory. McKenna is a writer and encyclopedic interdisciplinary scholar, and a swashbuckling psychedelic ethnobotanist, but I believe he's primarily a bard. The first time I heard him weave a story for a group of people in that elvish Mephistophelian voice with the Martian twang, it was on a series of audiotapes, **True Hallucinations** (to be published in book form this year). Something very peculiar — I can hear him saying it in my mind's ear — had happened to McKenna and his brother in Central America, and **True Hallucinations** was the story of what they thought it meant — an integration

of ethnobotany, neurochemistry, es-



Stropharia cubensis
(taxonomic drawing by Kat McKenna).



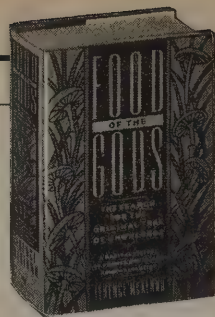
The bee-faced mushroom shaman of Tassili n'Ajjer (drawing by Kat McKenna).

chatology, flying saucers, DNA, alchemy and the I Ching. The tree-of-knowledge hypothesis didn't emerge until a few years later.

Five years ago, I mentioned McKenna's theories to an editor in casual conversation, and **Omni** magazine offered to pay my expenses and buy a story if I could find McKenna and penetrate to the heart of his tropical outpost. I attended one of his lectures. It wasn't hard to attract his attention; I wore a bright paisley-print sportjacket I had found on Haight Street years ago. I told him that **Omni** wanted a story. He said it was possible. I told Kevin Kelly about this turn of events; he wanted a different article about the ethnobotanical preserve. When I mentioned Whole Earth to McKenna, he invited me to his secret plantation. He met me at the kind of airport where you can walk on the tarmac to greet visitors, and drove me for hours over a bone-grinding road into a jungle. When we got to his place, something black and iridescent was boiling on the stove.

"Why don't your buddies at Whole Earth do an issue about vanishing ethnobotanical knowledge and the truth about psychedelic plants?" he said, stirring the pot and pouring out a large tumbler from it. He offered the tumbler to me and left me alone on the porch for the night, facing the jungle, to brave the 3D hallucinatory "instructions" transmitted by Ayahuasca, the fabled brew of Amazonian shamans. It was quite a night.

Omni accepted the story but never



Food of the Gods

Terence McKenna, 1992; 384 pp.

\$20 (\$22.50 postpaid). Available 3/92 from Bantam Books/Fulfillment Dept., 2151 South Wolf Road, Des Plaines, IL 60028; 800/223-6834 (or Whole Earth Access)

Terence McKenna:

The Experiment at Petaluma

Videotape **\$33** postpaid from Rose*X, P. O. Box 728, Petaluma, CA 94953; 707/763-4233

printed it. McKenna and I ended up doing a guest issue of **WER** a few months later; I guess that's really where I came from, as far as **WER** is concerned — Terence McKenna delivered me to Gate Five Road with that cup and that question. Very peculiar.

Food of the Gods is McKenna's theory-myth grown into prose. It's part speculative fringe science (his anthropological theories have some physical and linguistic evidence, somewhat flimsier than the not-altogether-indisputable evidence supporting more orthodox theories about the origins of language). McKenna has shown us that the psychedelic adventurers of the Western world have been Sunday sailors, puttering around in the bay on a sunny day, while out there in the jungles are true navigators of the inner sea. And he makes a strong case that the type of plant-tuned consciousness shamanic cultures once knew about offers a kind of answer — a radical one, certainly not intended to be universal — to the predicament of alienated, aspiritual, technological civilization.

Experiment at Petaluma is an earlier, video version of much of the same material that is more fully developed in the book, with fractal and other mind-manifesting imagery, accompanied by the author's own sardonic voice. —Howard Rheingold

• The first specimen of *Psilocybe cubensis* was collected by the American botanist Earle in Cuba in 1906, but current botanical thinking places the species point of origin in Southeast Asia. At an archaeological dig in Thailand at a place called Non Nak Tha, which has been dated to 15,000 B. P. the bones of zebu cattle have been found coin-

The Goddess In The USA/The Pentacle And The Wand

If you believe God is a woman, and the universe is her body, what does that do for you, do to you? How do you celebrate? What does it sound like? What powers are granted you, and what sacrifices are required? Adam Phillips did a great job of letting Goddess-worshippers speak for themselves when he interviewed Starhawk, Z Budapest, Nikki Sculley, Francesca Duby, Matthew Fox, Otter G'Zell, and others about the state of female-centered spirituality in America. The result was an audio documentary, broadcast by National Public Radio in 1988 and 1989. The first side of this cassette, "The Goddess in America," shows one of the great advantages of



Spes/Demeter (Minoan opium-poppy goddess/Greek fertility goddess) with sheaves and poppy seed capsules.

cident with human graves. *Stropharia cubensis* is common in the Non Nak Tha area today. The Non Nak Tha site suggests mushroom use was a human trait that emerged wherever human populations and cattle evolved together.

Ample evidence supports the notion that *Stropharia cubensis* is the Ur plant, our umbilicus to the feminine mind of the planet, which, when its cult, the Paleolithic cult of the Great Horned Goddess, was intact, conveyed to us such knowledge that we were able to live in a dynamic equilibrium with nature, with each other,

the medium: the voices of these women and men tell a lot about how they feel about what they are saying; they laugh a lot; they are enthusiastic but not proselytizing; many of them have the vocal equivalent of a twinkle in their eyes.

Francesca Duby sang an a capella hymn to the Goddess and explained that her life, her abilities, her experiences were the Goddess's gift to her, and what she did with the raw materials was her gift to the Goddess — how she dealt with life was the way she honored the covenant. Others explain how they learned about the Goddess, how they worship, where and why the Goddess is alive and well in America. Some talked about the past — the antiquity of the tradition and its survival against grim odds — but all talked about the future: about the ways Goddess spirituality, with its respect for the power of human consciousness and its attitude of loving participation in the natural environment, appeals to many in the 1990s.

On the cassette's second side, "The Pentacle and The Wand: Witchcraft Today," members of one of the most misunder-

and within ourselves. Hallucinogenic mushroom use evolved as a kind of natural habit with behavioral and evolutionary consequences. This relationship between human beings and mushrooms had to have also included cattle, the creators of the only source of the mushrooms.

The relationship is probably altogether no more than a million years old for the era of the nomadic human hunter dates from that time. The last 100,000 years is probably a more than generous amount of time to allow for the evolution of pastoralism from its first faint glimmerings. Since the entire relationship extends no farther than a million years, we are not discussing a biological symbiosis that might take many millions of years to evolve. Rather, we are talking about a deep-rooted custom, an extremely powerful natural habit.

Whatever we call the human interaction with the mushroom *Stropharia cubensis*, it has not been a static relationship, but rather a dynamic through which we have been [propelled] to higher and higher cultural levels and levels of individual self-awareness. I believe that the use of hallucinogenic

stood belief systems in history explain what witches are really about. Starhawk and Z Budapest are on this side too, discussing the wholesome aspects of witchcraft they never tell you about on Halloween. A nine-year-old girl explains that witches see the world in some of the same ways kids do: there is power in wishing, the moon is a mystery, the earth is full of wondrous powers. And both my seven-year-old daughter and I were captivated by Rolla Nordic, a 92-year-old British witch, who was initiated into Celtic traditions by her own grandmother. Nordic tells a tale about her coven, which met in a cathedral provided by a sympathetic churchman(!) in London during the blitz, to try to throw up their own circle of protection and mess with the weather. Nordic adds that a lot of witches worked hard and long to summon the freak storm that defeated the Spanish Armada — which was, among other things, determined to bring the Inquisition to England.

Witchcraft is about attention and intention, about directing your consciousness at the cycles of the cosmos and deliberately trying to tune yourself to them. It's about the universe as a living being. Listening to this tape gave me information on a deeper level than I had found in reading books and articles — the voice, after all, was the first magical instrument. —Howard Rheingold

The Goddess In The USA/ The Pentacle And The Wand

Sixty-minute cassette by Adam Phillips.

\$10.50 postpaid from Adam Phillips, 2317 Ontario Road NW, Washington, DC 20009

mushrooms on the grasslands of Africa gave us the model for all religions to follow. And when, after long centuries of slow forgetting, migration, and climatic change, the knowledge of the mystery was finally lost, we in our anguish traded partnership for dominance, traded harmony with nature for rape of nature, traded poetry for the sophistry of science. In short, we traded our birthright as partners in the drama of the living mind of the planet for the broken pot shards of history, warfare, neurosis, and — if we do not quickly awaken to our predicament — planetary catastrophe.



The Civilization of the Goddess

Once upon a (long) time in Europe, Neolithic peoples lived well and peacefully in egalitarian harmony — and worshipped a female deity. Then invaders on horseback came from the east, bringing with them weapons of war and an entirely different way of life: the stratified social order of dominant male chieftains and the worship of male gods.

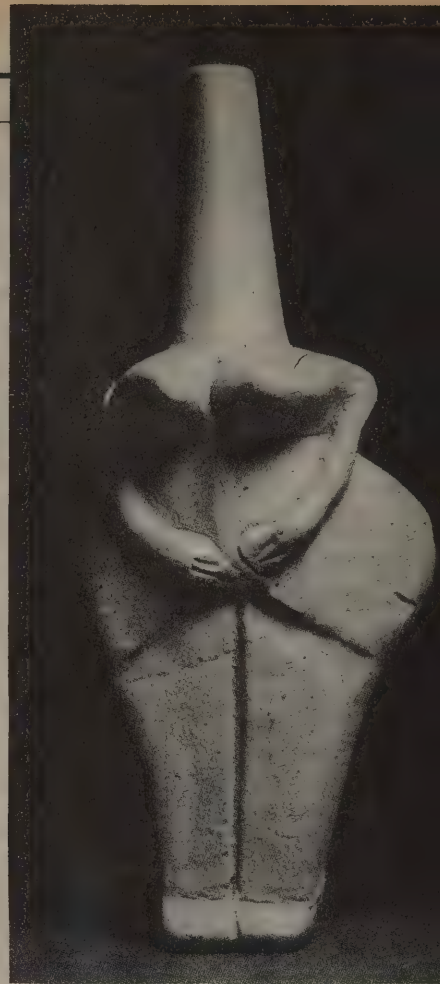
This is the basic story Marija Gimbutas has gleaned from many years of archaeological work. **The Civilization of the Goddess** presents her groundbreaking conclusions, and the evidence to support them, in a comprehensive pan-European survey of Neolithic cultures.

Of her three books on "Goddess culture" (*The Goddesses and Gods of Old Europe*, WER #62, p. 126; *The Language of the Goddess*, WER #67, p. 124), this is the Big Book that examines all aspects of the regional lives of Old Europe inasmuch as they are known: habitat, tools, and economics; art, symbolism, and religion. It is more a beautiful, generous textbook than a pictorial; a work more accessible to the layperson is planned. —Robin Bishop

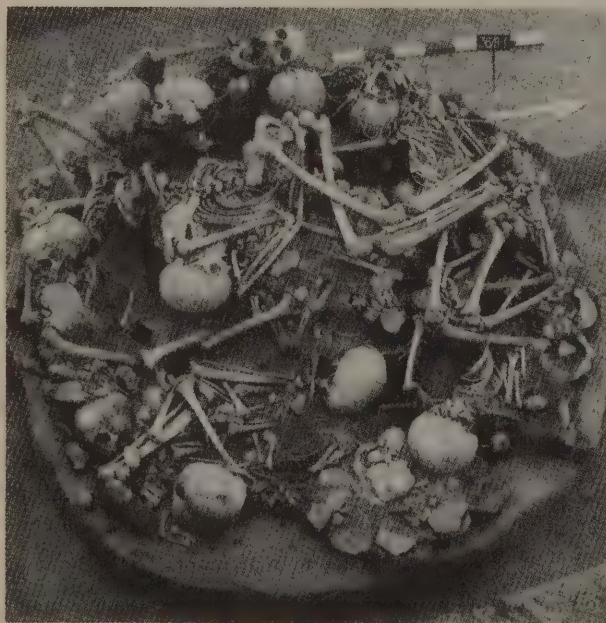
■ The Old European social structure was in direct contrast with the Indo-European

system that replaced it. As archaeological, historical, linguistic, and religious evidence shows, Old European society was organized around a theocratic, communal temple community, guided by a queen-priestess, her brother or uncle, and a council of women as the governing body. In spite of the revered status of women in religious life, the cemetery evidence throughout the 5th and most of the 4th millennia B.C. does not suggest any imbalance between the sexes or a subservience of one sex to the other. It suggests, instead, a condition of mutual respect. The primary grave goods for both sexes are symbolic of the sacred cycles of regeneration, although burial goods also honor personal achievements in the arts, crafts, trade, and other professions.

■ A study of symbols in Paleolithic art demonstrates that the female, rather than the male, was the deity of creation. In fact, there are no traces in Paleolithic art of a father figure. The bearing and nourishing of offspring — plant, animal, and human — was the primary model for the development of the image of the Goddess as the all-generating deity.



Hamangian Stiff Nude, clay figurine from the Cernavoda graveyard, c. 4800 BC.



Multiple sacrificial burial of the Baden culture. Seventeen human skeletons (four adult and thirteen child) found in a pit. The oldest male (approximately 25 years old) lies in the center of the pit while the women and children are at the edge. Perforated horse teeth were deposited only with male skeletons. Bronocice, district of Kielce, S Poland. Radiocarbon-calibrated date: 3100 - 2960/2870 BC.



The Civilization of the Goddess
Marija Gimbutas, 1991; 416 pp.

\$60 (\$62.75 postpaid) from
HarperCollins Publishers/Direct Mail,
P. O. Box 588, Dunmore, PA 18512;
800/331-376
(or Whole Earth Access)

■ No weapons except implements for hunting are found among grave goods in Europe until c. 4500 - 4300 B.C., nor is there evidence of hilltop fortification of Old European settlements. The gentle agriculturalists, therefore, were easy prey to the warlike Kurgan horsemen who swarmed down upon them. These invaders were armed with thrusting and cutting weapons: long dagger-knives, spears, halberds, and bows and arrows.

■ The bovine remained the main draft animal of the Volga Neolithic as evidenced by figurines of probably yoked oxen, while the swift horse became the "motor" of transport. This innovation cut traveling time by a factor of five or more, nullifying whatever territorial boundaries had previously existed.

■ Burial excavations reveal two aspects of Indo-European ideology, found for the first time in east-central Europe at Suvorovo in Moldavia and at Casimcea on the Lower Danube. These two graves demonstrate the Kurgan religious concepts of the wor-

ship of the horse as a divine animal and the custom of suttee or sacrifice of the female consort or wife. At Suvorovo, a chieftain was buried in a deep rectangular pit lined with stones containing a horse-headed scepter of porphyry, his symbol of power, and other objects deemed necessary in afterlife. A woman, presumably his widow, was apparently put to death at this time and laid to rest beside her dead lord. Remnants of a garment covered with mother-of-pearl laminae and a necklace of unio shell beads express her relatively elevated station in life, but the only gift accorded her was a flint scraper.

● From the predominance of its image, we gather that the primary divinity worshiped in temples of the Vinca site was the Bird Goddess. There are, however, other deities represented, such as Snake Goddesses, Madonnas (mother figures with a bear or bird mask holding a baby). Zoomorphic figurines such as snakes, frogs, hedgehogs, dogs, and fish, and anthropomorphic male figures wearing ram or he-goat masks constitute about 20 percent of the figurines. Of great interest are the centaurs found in southern Yugoslavia, in which a masked human head is grafted onto the body of a bull.

Goddess Sites: Europe

Forget those traditional guides to Mont-Saint-Michel and Rhine wine tours; take a romp through a few of the many sites inhabited by a goddess, female saint, queen, or womanly legend. Walk the sacred grove of Hecate in Italy; view the ribald Sheela-na-gig baring her genitals to Oxfordians; see Isis/Mary, Star of the Sea, in the Netherlands. There's more than mustard in Dijon and pastries in Vienna — there are goddesses.

Goddess Sites: Europe is limited. There are many more shrines than those covered here. For instance, only one site each is described for Hungary and Yugoslavia, although others are alluded to. Still, the book, full of wry anecdotes, makes discovering the goddess more like family fun than heavy study. She'd probably like that. —Robin Bishop

■ Frauenberg Temple of Isis-Noreia

Finding Isis in Austria is like running into your mother at the dragstrip. Her calm eyes meet your surprised ones. One cool hand smooths your forehead and another one proffers a glass of water. . . .

At her temple here on Frauenberg, the tantalizingly named "women's mountain," the goddess was worshipped under the title Isis-Noreia. When the Romans arrived here in the first century C.E., with Isis in tow, they found that the local Celtic tribe, the Noriker, had long revered their own tutelary goddess, Noreia. Noreia's popularity has been proven over and over by archaeological finds in this region. She was a mother goddess and much more. Her blessing safeguarded farming, metalsmithing, handicrafts, and all kinds of art; she represented fertility, fruitfulness, the earth, life, and death. She was supreme, all-embracing. However, with the arrival of the Romans, the Celts lost much of their independence

and thus their cultural vitality. As their star faded, so did Noreia's. But the Romans were enthralled with her nevertheless. To bolster her sagging powers, they quickly merged her — as was their habit — with their own supreme, all-embracing adopted goddess, Isis. Thus Isis-Noreia was formed.

■ Kildare Tobar Bride (Brigid's Well)

Tobar Bride bubbles up out of the rich earth — a gift. The waters offer themselves, every drop, to your wounds, your pain. The well is a virtual salve factory.

Just a mile away from here, down the dreamy country lane, is Brigid's most famous monument: her ancient fire sanctuary. Generations of priestesses tended her eternal flame. A fire sanctuary . . . and this water sanctuary, practically elbow-to-elbow, both in the name of the same goddess. What kind of spiritual schizophrenia is this, anyway?

But Brigid is the most versatile of goddesses. The ancients perceived her as threefold, a one-woman holy trinity who enjoyed dominion over three crucial aspects of Celtic life: poetry, smithcraft, and healing. So fire and water are both hers, after all: the fire that melts the metal and the water that cools fevers and washes wounds.

Goddess Sites: Europe

Anneli Rufus
and Kristan Lawson,
1991; 319 pp.

\$12.95
(\$15.70 postpaid)
from HarperCollins
Publishers/Direct Mail,
P. O. Box 588, Dunmore,
PA 18512; 800/331-3761
(or Whole Earth Access)



The Bird Goddess from Vinca wearing a beaked mask. Mid-5th mill. BC.

The Goddess Obscured

In her acknowledgements, Pamela Berger says she "wrote this book to satisfy my own curiosity about the endurance



English corn dolly. This type of straw harvest figure is braided from wheat of one harvest and returned to field the following spring to act as guardian over the next year's crop. The type is known as Mother Earth.

Manuscript illustration, hymn book. Saint Brigid in top mandorla and Walpurga below. Each holds stalks of foliage.



of old customs: to understand the syncretism that fuses pagan figures and Christian saints; and to seek out the influence of dreams and visions in the transformation of gods and goddesses into saints or demons."

The author searches for the goddess underneath layers of sanitized madonna worship and washed-out Greek deities. The path starts with fragments and traces within Christian practice and leads us back to a time when the primary cultural rituals centered around the grain miracle — the transformation of buried seed into abundant food. Berger takes hints from folk figures in order to trace the genealogy of the Christian Mary through medieval pagan customs to a pre-patriarchal era whence she came. —Karen Smith

● A kind of catalog of forbidden pagan activities is found in a seventh-century sermon by Saint Eligius of Noyen (588 - 659). The very fact that Eligius inveighs against these practices indicates that in varying degrees most of what he mentions must have been current in Gaul at that time. Eligius exhorts the people not to observe any of the sacrilegious customs of the pagans: Do not pay attention, he said, to auguries or "special" days; do not look to the moon as a guide for the proper moment to undertake a task; do not disguise yourself as a calf or deer at the Kalends festivities of January; do not dance or sing diabolical songs at festivals of the solstice; do not invoke the names of Neptune, Pluto, Diana, or Minerva; do not light fires or make vows at pagan temples, or at rocks, fountains, or trees, or at road crossings; do not suspend charms from your neck; and on and on. Whoever engaged in any of the above behaviors was guilty of demonism.

The Feminine Face of God

Think of all the masculine divinities and teachers who have permeated our lives: God-He, Jesus-He, Buddha-He, Mohammed-He. Even Freud and Jung are indisputably He. The face of God was revealed to men as a male. And so things stayed until feminism began to nip at some of the old ways and empowered women to seek an individual source within. The inherent spiritual dimension of women's experience slowly came unstuck from the patriarchy as we began to talk to each other in trust and sharing. Voices have emerged from these many lives, asking, wondering: how is this to be done? How to balance our cultural commitments, marriages, work, relationships and still grow inwardly? Many find that refining and focusing on the experience of the divine stresses the old accepted roles and bonds beyond the breaking point.

This gentle, timely book resounds with the eloquence of women committed to cultivating direct knowledge of the sacred. Together, with many voices, they show how to draw down the light and replace isolation with relatedness, not to build empires but to do what our inner selves are telling us to do.

—Carolyn Garcia

■ The discovery that what we were doing



The Goddess Obscured

Pamela C. Berger, 1985; 250 pp.

\$14.95 (\$17.70 postpaid)
from Beacon Press, 25 Beacon Street, Boston, MA 02108; 617/742-2110 (or Whole Earth Access)



Plaques with fertility goddesses holding stalks of vegetation. Late Bronze and early Iron Age.

was unique, that it is unusual for people to talk deeply with each other about what informs and gives meaning to their lives, disturbed us. But if it was disheartening to recognize that as a society we place no importance on sacred sharing in our daily interactions, something else inspired us. The willing spirit with which the women entrusted us with their stories, and the tears which often testified more eloquently than their words to the deep truths they were communicating, told us that we were engaging in a powerfully transformative process. We were "hearing each other into speech," as author and theologian Nelle Morton describes it. For until we can speak our truth and know that we have been heard, we don't wholly know it ourselves. And each time a woman told us her story there was a growing awareness that she, and we, were beginning to find our voices.

■ If we lock away the fearful, painful experiences of our lives — the death of a loved one, a betrayal, or a passion that is not approved by society — we cut them off from their natural cycling. They are not washed by our tears. They are not exposed to the warmth of our heart or the light of our consciousness. And so these old emotions and memories can not break down to become sources of new life. Rather they lie in wait like the Furies in Pandora's box. And that is indeed dangerous. Not because something has been unlocked, as the story claims, but because it has been locked away.

- We attended a lecture in Los Angeles by Twylah Nitsch, known to her Seneca people as Yehwehnode. As an elder of the Wolf Clan she received an enthusiastic welcome, and her audience listened to her speak in respectful silence. Afterward, one admiring young woman said, "It is such a gift to hear your wisdom, Grandmother. How I wish we had others like you! But we have no crones, no elders."

"Yes, you do," Twylah shot back. "You've stuffed them out of sight in old age homes. You can't hear what they have to say. You can't receive what is already in front of you. You don't know how to respect them, to offer gratitude for what they have shared with you."

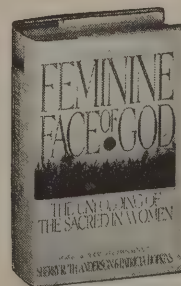
Taken aback by Twylah's response, the woman asked, "What can we do?"

"Start now," Twylah said. "Start now to acknowledge those who help you and love you. Show your gratitude."

- "Of what had I ever been afraid? . . . I was going to die, if not sooner then later, whether or not I had ever spoken myself. My silences had not protected me. Your silence will not protect you . . . it is not difference which immobilizes us, but silence. And there are so many silences to be broken."

- "From below the silence a strong, sweet feeling began to rise. I was meeting the

center of the earth and she was love, a love which supported and embraced everything without exception. A love which drew back from nothing, no matter how horrible. I wept with gratitude as that love enfolded me. I understood with my whole body and being how ridiculous it was for me to strain to hold myself up. All my life I had been completely supported by this love at the center of the earth, but I hadn't noticed because I was always trying to rise above life. I could have surrendered to it. I could have nestled into this mother's arms and lived there safely. I felt compassion and pity for my lifetime of needless, exhausting striving."



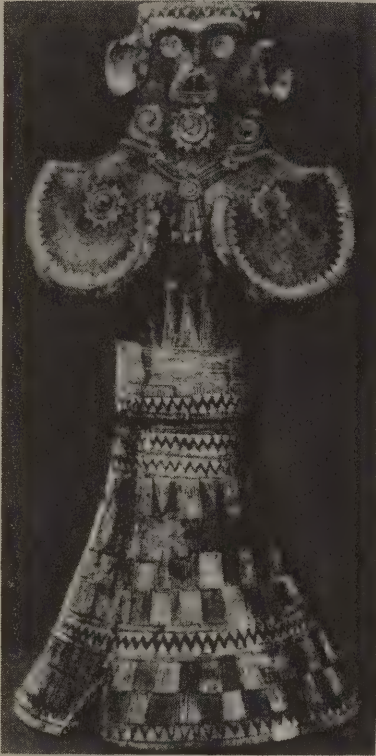
The Feminine Face of God

Sherry Ruth Anderson and Patricia Hopkins, 1991; 253 pp.

\$20 (\$22.50 postpaid from Bantam Books/
Fulfillment Dept., 2451 South Wolf Road, Des Plaines, IL 60018; 800/223-6834 (or Whole Earth Access)

The Heart of the Goddess

This book is a visual and spiritual well-spring, brimming with images of the Goddess, the sacred art of the past 10,000 years found scratched on cave walls, painted on vases, carved in stone and molded in clay, images of the Mother of creation — a whole bookful of beautiful Goddesses: the dreaming Goddess from Malta, skull-crowned Coatlicue of Aztec time, an alabaster Ishtar with ruby eyes, a glorious Pele



The Oracular Goddess.

■ The Oracular Goddess
Europe, 4th — 2nd Millennia B.C.E.

Imagine that you are this Goddess from thousands of years ago. You are wearing a robe encoded with the stories of your people and their lives. You are the oracle, the trance speaker. Energy from your breasts radiates into the universe, sending and receiving wisdom. Your ears can hear everything; your eyes see all. Snakes spiral around your throat, your oracular center, which is pulsating like a star. Your mouth is wide open; you fill it with your voice. What wisdom comes through you for the people of today?

gushing red fire, Isis with golden wings, the many-breasted Diana of Ephesus who so confounded St. Paul, regal Gwandusu of Mali. Each image is accompanied by a short introduction, a poem, and some suggestions for opening the way to deeper appreciation. Looking at these images, and reading the prayers and poetry, kicked up a swirl of recognition and a tickle of joy in my heart. It's wonderful to see maternity and femininity so honored in sacred art. The time I spent contemplating these made me feel healed, initiated, and refreshed. —Carolyn Garcia

● In the Biblical tradition Lilith was the first woman, created simultaneously with Adam. In the beginning they got along quite well, but then Adam tried to force Lilith sexually. She refused, insisting on maintaining equality with him. Adam complained to God, who turned against Lilith. She then tricked

Yahweh into revealing his secret name of power, grew wings and flew out of Paradise to live in the desert.

● Wild cats will meet hyenas there,
The satyrs will call to each other,
There Lilith shall repose
And find her a place of rest.

—Isaiah 34:14

■ As the Great Mother of India and Tibet, Tara is at once the fierce Goddess of the Underworld, the Earth Goddess of plants, animals and human beings and the Heavenly Goddess of wisdom and spiritual transformation. When she was absorbed into the Buddhist pantheon, she became a bodhisattva, an enlightened being who, rather than entering nirvana, chooses to remain in the world until everyone is liberated. Unique among the bodhisattvas, she vowed to always reincarnate as a woman.

States Of Grace

Wasn't technology supposed to be the answer to humanity's problems? Didn't Walt Disney promise a perfect Tomorrowland where all was smooth and streamlined and everyone had a seat? Nature was supposed to roll over and behave itself, muzzled and leashed in perpetual servitude. But it just didn't happen that way.

Somehow, knowledge of subatomic physics didn't confer a present-time awareness of our participation in the dance of the universe going on inside ourselves. Incurious and numb, we fail to experience our connection, our ecological niche, and continue to whittle the earth down into a mineral plain. Our human connectedness, traditional cultures and old wisdom religions are tattered and ignored.

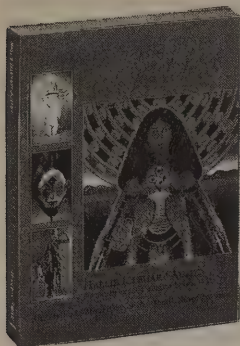
Charlene Spretnak has fashioned a web of meaning, rich with quotes, references and history, drawing from the great traditions of native American ecological wisdom, the Buddhist teachings on the nature of mind, the new Goddess awareness of embodiment and ritual, and the ethical heart of Judeo-Christian traditions. Her interdisciplinary approach makes manifest the subversive nature of the core teachings of the wisdom traditions, and the power of even the simplest spiritual practice. She has created

a unitive network of intelligence designed to flare across our political darkness, illuminating both the wreckage and new possibilities for communion and resistance to further ecological and cultural destruction. She calls for purification of mind, awareness of cosmic context and joy of life.

A complete related-reading list twenty pages long plus appendices, notes and index make this book a powerful learning tool. I treasure this work; it is potent alchemy. —Carolyn Garcia

■ It is painfully clear that modern consciousness has taken a detour off the primordial pathways to grace. Day by day people die as victims of this route. The road is getting rougher. At the end lies a cliff. Around us our leaders, good lemmings all, exhort us to stay the course.

The impetus to find other ways of being has spawned ecological postmodernism. The impetus to reveal the card tricks behind the "obvious truth" of rationalist modernity has spawned deconstructive postmodernism. The cultural explosion of the latter in so many fields at this time can be regarded as a wake for the shocking passing of the seemingly stable, objectivist, mechanistic, rationalist worldview. Apparently it is an Irish-style wake with lots of whiskey, food, and verbal virtuosity. Some



The Heart of the Goddess

Hallie Iglehart Austen,
1991; 174 pp.

\$24.95 (\$26.95

postpaid) from Wingbow
Press, 7900 Edgewater
Drive, Oakland, CA 94621
(or Whole Earth Access)



Hawaiian culture does not have a separate word for religion, and the Goddess is known to the people on a personal level. To this day, many see her and refer to her familiarly as Madam Pele. The volcano Mauna Loa is considered a manifestation of this Goddess.

folks are quite intoxicated and natter on too loudly and too long (do we really need yet another university press announcing a postmodern series that will "expose" everything in human experience as mere self-referential discursive constructions?). Other deconstructive-postmodern mourners are full of rudeness and exaggeration. Still others churn out boring, sterile art, enshrining the futility of it all. In the corner some rowdies chant mockingly, "*Things fall apart; the centre cannot hold.*" They smash their glasses and shout that there never was a center. Arrogant and peevish behavior does not hide their fear of living without the smug certainties of objectivist, scientific delineations of reality. As deconstructive postmodernists continue to "bust up" the furniture at this wake, I suggest we remember that in the grieving period after a shocking death, just as in the minutes or hours before a birth, all rules are suspended. No one expects coherence. Odd responses are overlooked, and angry outbursts are absorbed. An event of deep transition creates its own rules.

• None of us exists in isolation from the vast web of relationships that are gravitational, genetic, vibratory, and much more. Everything that appears in the cosmos emerges into this web. A manifestation of being is a concentration of energy, allurements, elemental communion. The subjectivity of each being, its depth and interiority, is a face of the ultimate mystery of the uni-

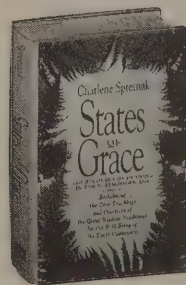
verse. Each of us is unique but not apart. Our differentiation yields otherness, while our unitive ground of being is dynamic oneness.

• Without nonviolence — mindstates of lovingkindness and compassion — at the core of our societal constructs, however, even the desire to protect and preserve can be manipulated in service to barbarism masquerading as idealism. Totalitarian regimes exist by convincing their enthusiasts that a lofty social goal is at stake: the preservation of their society, or perhaps the creation of a brave new order. To achieve that goal, it is necessary to root out, contain, torture, and exterminate "bad" people, identified as enemies of the regime's "greater good." The most zealous of the true believers in Stalinist Russia, Nazi Germany, Mao's Cultural Revolution, and the Pol Pot reign of terror were often the youth, violent enforcers sometimes as young as ten steadfastly targeting and punishing the "bad" people so that "good" could triumph.

• The universe is laced with mystery, undulating in rhythms of novelty and unity. Its self-organizing, self-regulating magnificence is informed by diffuse powers of subjectivity we call by various names: Cosmic Consciousness, Ultimate Mystery, the divine, God, or Goddess. When one experiences consciousness of the exquisite interrelated-

ness and subtle vibratory flux of the life of the material world — a perception that extends our understanding of "sentient" beyond the animal kingdom — one is filled with awe. One has experienced immersion in ultimate value, the sacred totality. Hence one has known grace.

■ St. Hildegard, the gifted poet, composer, artist, and biologist of twelfth-century Rhineland, coined the term *viriditas*, the greening power of the divine, to describe her perception that the optimal spiritual condition is to be green and juicy, warm and moist, rather than cold and dried up.

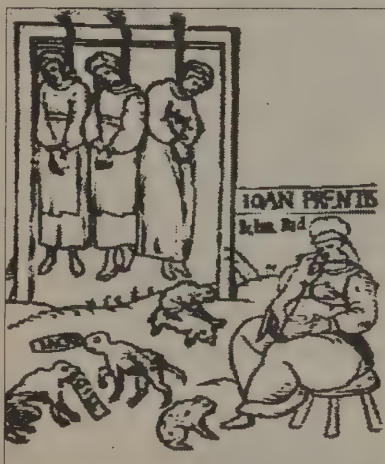


States of Grace

Charlene Spretnak, 1991; 337 pp.

\$21.95 (\$25.45 postpaid) from
HarperCollins Publishers/Direct Mail,
P. O. Box 588, Dunmore, PA 18512;
800/331-3761 (or Whole Earth Access)

The Burning Times • Goddess Remembered



(Top) "Everything she touches, changes": Starhawk leads a spiral dance for the Summer solstice in *The Burning Times*.

(Above) Elderly and poor women were often hanged as witches. From *The Burning Times*.

(Right) A representative of Pythia attends a tribute to the Goddess. From *Goddess Remembered*.

The Burning Times depicts the inquisition and women's holocaust known as the witch hunts, and today's witch and coven as experienced by Starhawk, a prominent activist and teacher. *Goddess Remembered* puts the Goddess back together on screen with an amazing array of artifacts and ancient sites. The trail starts with the caves of southern France and ends with the peaceful, creative Minoan settlement of Crete with



Behind the Veil: Nuns

The point is made in *The Burning Times* that the witch-burning industry was quite lucrative. The property of the accused (often an elder widow) was seized to pay for her trial and killing. In *Behind the Veil: Nuns*, which Donna Read helped edit, a similar point is made about the stripping of property and power from female-run abbeys over time by papal bulls and councils.

Hildegard von Bingen was not the only outstanding, powerful theologian who was also a woman in the earlier days of the church. Consider also the story of Pope John/Joan, who in the mid-800s "miraculously" gave birth during a papal parade. She and the child were stoned to death by monks when they realized the miracle of male motherhood was not so — it was only the usual miracle. In a time when popes were not necessarily celibate, the learning and greatness that got her elected were no longer considered — only her previously undisclosed her-ness. On that spot stand a tiny chapel of the Virgin and a somewhat larger pizzeria. Papal parades

its frescoes of the Pythian goddess, and of women in full social participation at all levels ("Halls full of chattering women," according to the perplexed Victorian explorer Sir Arthur Evans).

The two videos go together. Both are essential viewing for anyone interested in women's spirituality and culture or human history. Both can be seen again and again without becoming tedious.

The music is often stirring; the images are rich and tantalizing. The interviewees of both *The Burning Times* and *Goddess Remembered* are primarily literary figures: Starhawk (who appears in both) and Matthew Fox ("I thought the witch hunts were over centuries ago"); and Louisa Teish ("God — you can't talk to the dude"), Charlene Spretnak ("Our leaders see nature only as a resource"), Merlin Stone ("I was told there was no evidence of Goddess culture"), and others. —Robin Bishop

avoid this route now, and John/Joan has been wiped from official church history.

Is it possible to change the leaden Catholic edifice from the inside? Many intelligent, altruistic, passionate nuns seem to think so. The film gets inside their hearts and heads, from the Peace Corps worker who revolted against materialism to the Irish elder who unvindictively dissects the patriarchal hierarchy (and don't miss the burger-flipping Sisters!). Then on to the Goddess, and the abbesses and saints who can still thrill us with their visions and achievements, whatever our spiritual persuasion, when Christianity was younger and perhaps more enlightened.

This is a long, leisurely, two-part video, so get comfy (slip out of your horse-hair shirt). —Robin Bishop

Behind the Veil: Nuns

Order Video #9223

\$245 (three-day rental \$60) from Wombat Film & Video, 930 Pitner, Evanston, IL 60202; 800/323-5448

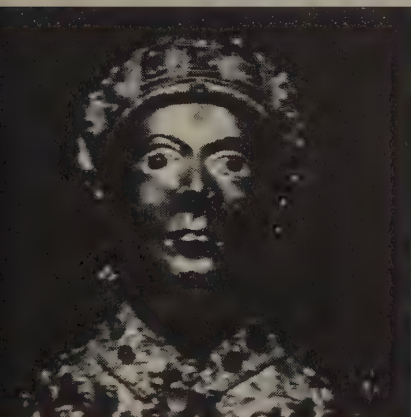
The Burning Times

Directed by Donna Read/
National Film Board of Canada

Goddess Remembered

Directed by Donna Read/
National Film Board of Canada

Each **\$44.95** postpaid (\$86.90 for both) from Direct Cinema, P. O. Box 10003, Santa Monica, CA 90410; 800/525-0000



Bejeweled statue of a Celtic goddess-cum-Christian saint. From *The Burning Times*.



A jousting nun avoids being unseated by a male cleric in *Behind The Veil: Nuns*.

The Virgin

The cult of the Virgin emerged suddenly and in full majesty within the Christian church in 431. The formerly humble human vessel for Jesus' delivery into the world officially became the Mother (and spouse) of God and then Queen of Heaven — an immortal whom even God must obey.

What overwhelming pressures prompted this abrupt change in Mary's status? In *The Virgin*, Geoffrey Ashe explores the possibilities: a parallel Mary-centered church of primarily female disciples, an irresistible popular movement founded on ancient Goddess worship, a way of saving the church itself. Ashe makes his impressive scholarship juicy and his flights of fancy scholarly, a combination that draws you inexorably into the gnarly cosmic intrigue whether or not you have any interest in Christianity or Catholicism. —Robin Bishop

• Today one can talk casually of Christianity being paganized, and polytheism returning through worship of Mary and the saints. But because this did in some degree happen, it is too easy to forget the weight of resistance, and shrug off the problem of its ever having begun. If the Church eventually turned its Virgin into a new Isis or Cybele, the reason was not that churchmen drifted absent-mindedly into doing so, but that some positive Goddess-making factor — some factor which has thus far escaped us — was stronger than their will not to do so.

■ Wherever Collyridians flourish they have 'assemblies' or 'associations'. And they worship Mary as Queen of Heaven, with a ritual derived from far back beyond Christianity.

They adorn a chair or a square throne, spread a linen cloth over it, and, at a certain solemn time, place bread on it and offer it in the name of Mary; and all partake of this bread.

The ceremony goes on for days. Epiphanius denounces it with bitter scorn. The word 'Collyridian' itself is a sneer. It is coined from the Greek *kollyris*, which is found in the Greek version of 2 Samuel 6:19 and means a little loaf or roll. The bishop is oddly close to calling these women Holy Rollers.



The Virgin

Geoffrey Ashe, 1976, 1991; 272 pp.

\$9.95 (\$11.95 postpaid) from Penguin USA/Cash Sales, 120 Woodbine Street, Bergenfield, NJ 07621; 800/253-6476 (or Whole Earth Access)

Longing For Darkness

Dark matter makes up most of the universe (astrophysicists tell us), drifting between the stars, unseen and mysterious, filling space with invisible substance. In the human realm, the darkness of archaic wisdom is the shadow, the veil of unconscious mind, of the womb and of space. Ancient female icons with a dark aspect include the Black Madonna, the Black and Green Taras and Kali. (Indeed, if you visit the crypt of Chartres Cathedral, you will see a very dark statue of the Madonna.) Other examples can be found throughout Europe (Lech Walesa dedicated the Solidarity movement to a Black Madonna in Czestochowa.) Although Church officials usually dismiss the dark color as an attribute of their great antiquity, these icons are in fact versions of the dark Goddess of the ancient European religion. People traveled to shrines at sacred springs and atop sacred hills for centuries, perhaps thousands of years, before Christian cathedrals were built on those sites. The Black Madonnas symbolize a protective, active, fierce feminine power that clears away fear and bestows grace. In India, the Hindu Kali is a fierce, dark, female deity. And in the Buddhist tradition, Black and Green Taras symbolize characteristics very similar to those of the Black Madonnas. What is the mysterious connection between these female deities? And why are they black?

Author China Galland pursued this emerging feminine spirit with a passion and inquisitiveness that propelled her around the world, to monasteries in Nepal and a meeting with the Dalai Lama, then to Yugoslavia, Switzerland, and France. It wasn't easy to get to the people who could tell her what she wanted to know; ultimately, her mission to discover the dark aspects of the divine feminine took ten years.

The intensity of the author's search radiates out of this book, profoundly involving the reader in spiritual mystery, epic travel story, and sheer adventure as the author pries at the cultural concrete hiding a fluid, living feminine spirit.
—Carolyn Garcia

Black Madonna at Einsiedeln, Switzerland, "Our Lady of the Dark Forest."
(O. Baur)



The Cult of the Black Virgin

Hundreds of statues of black women are venerated as the Virgin Mary throughout Europe. While the clergy is reluctant to fully acknowledge these strong, dark images, the passionate devotion given them by the populace ensures a place in the church for the Black Madonna — even if it is merely a modest back comer.

Who is she, really? More mysterious than comforting, authoritative rather than saintly, this Virgin is more matriarch than handmaiden. Shades of African goddesses, Gypsy queens, and woman warriors surround her. Some make her out to be Mary Magdalene holding the infant she conceived with Jesus. Ean Begg takes account of each statue in a comprehensive tour that takes us all over Europe and through several millennia. —Karen Smith

[From the Gazetteer]

210 LePuy Haute-Lire; 76 (7); N-D du Puy; city of Anis pre-Roman capital of Velay; major Druidic centre; two impressive rocky peaks of unequal size dominate the city, the Rocher Corneille, where the Cathedral stands with the huge statue (16 m) of N-D de France on the peak above, and St Michel d'Aiguilhe, her consort, where a Romanesque chapel of St John replaces the temple of Gallic Mercury; Temple of Diana at foot; first apparition of

Virgin traditionally AD 46; black stone from dolmen on Rocher Corneille, La Pierre des Fieures, healed malignant fever of widow AD 430 who was told by the Virgin in a vision to lie on top of it; Bishop recognized cure; stag ran out of woods and traced plan of Cathedral in July snow-storm; further miracles led to construction of first basilica, which was consecrated by angels.

The most notable cultic feature belonging both to Artemis and to the Black Virgins is the fact that they both tend to make their home in trees where they are later 'found'. Artemis Orthia, like the Black Virgin of



The Cult of the Black Virgin

Ean Begg, 1989; 304 pp.

\$9.95 (\$11.95 postpaid) from Penguin USA/Cash Sales, 120 Woodbine Street, Bergenfield, NJ 07621; 800/253-6476 (or Whole Earth Access)

• I had been taken from scholar to scholar, meeting with learned and respected lamas and rinpoches to ask my questions about Tara and women teachers. I had learned a great deal more about Tara but little about women teachers, past or present.

"There must have been some, yes, I heard of one woman teacher, but the name, I don't remember. No one wrote her teachings down . . ."

"Many women had great knowledge but they kept it a secret, or they were never known . . ."

"Perhaps women didn't have enough courage to do the practices so they didn't become teachers . . ."

"Many women were eminent in the fifteenth and sixteenth centuries, but their names have been lost . . ."

As I walked down the road from the monastery, I passed a beggar and suddenly realized that that's how I had been feeling, like a beggar, for stories of women masters. My tape recorder was the cup that I held out.

• I imagined Mary as a fierce mother one morning in my prayers and meditation. I imagined her protecting Christ. The Mary I saw stepped in front of his tormentors. She did not stand passively as he made his way to Golgotha, at first she hurled herself at the Roman soldiers, "Stop, stop, stop!" trying to wrench their whips away from them, then to remove his crown of thorns. She was fiercely protective and she was greatly outnumbered. They shoved her away and formed a phalanx around Christ.

She denounced the soldiers, she defied them. She did not faint, she was not helpless, she did not retreat, she was not polite.

She was a tower of strength, she did not take her eyes off her Christ. She walked with him, outside the phalanx of soldiers. She was his most powerful witness, she suffered with him mentally and physically.

This is a Mary we have not seen in the West. This is a Mary that we need now, a fierce Mary, a terrific Mary, a fearsome Mary, a protectress who does not allow her children to be hunted, tortured, murdered, and devoured.

"Mary, the poorest people, the most vulnerable, the weakest who suffer the most are devoted to you. Why do they pray to you?" I asked. "Why don't you protect them? Would it be worse if they did not pray to you? We need a mother who protects us, who is like a lioness defending her young, is terrible when crossed.

"Show me your face."

■ "Poland cannot be understood without the issue of the cross and belief," he says now. "Many times, especially in very difficult periods, Poland was saved by the Church and the Polish nation was much better off because it was a nation of believers. We believe in miracles and that makes people heroes. Sometimes *only* a belief in miracles led us to survive — especially at the very crucial points of our history in the fight for independence. We go to the Madonna and beg her to help us when something is very important for us." [Lech Walesa]



Clermont-Ferrand.

Bourg, was found in a hollow willow tree, and hence is known as *Lygodesma*, 'willow-captive'. Other images of her were adored in a myrtle and a cedar. A third-century coin from Myrrha in Asia Minor shows the Virgin in a tree flanked by two axe-wielding figures, possibly Cabiri. From Scherpenheuvel in Belgium to Prats in the Pyrenees, via Chartres and Longpont, there are many examples of Black Virgins being associated with an earlier tree cult. Then too both Artemis and the Black Virgin demand to be worshipped in their own way, where they have been found. When moved against her will the Black Virgin resists by becoming insupportably heavy. Artemis too indicates her disapproval in this way, as when the flagellation of the young Spartans slackened, a phenomenon noted by the priestesses who carried her during the ceremony.



Montserrat (copy in Santiago de Compostela).



Longing For Darkness

China Galland, 1990; 392 pp.

\$12.95 (\$14.95 postpaid) from Penguin USA/Cash Sales, 120 Woodbine Street, Bergenfield, NJ 07621; 800/253-6476 (or Whole Earth Access)

Here is a tool for revolution. This manifesto is the first clear, simple, activist proposal for creating a new communication medium, and a call to action for everyone, not just the computer cognoscenti.

The following document started out as the testimony of Mitchell Kapor before the House Subcommittee on Telecommunications and Finance. The testimony was prepared by Kapor (founder of Lotus Development Corporation, one of the most successful entrepreneurs of the personal-computer revolution of the 1980s, and cofounder of the Electronic Frontier Foundation), in consultation with Jerry Berman, director of the ACLU Information Technology Project, and Daniel Weitzner of the EFF's Washington office. The proposal began circulating electronically and has been specially revised for WER. Read it. Copy it. Pass it around. If enough people understand this vision, and make their voices heard, the tip-rudder effects could be enormous.

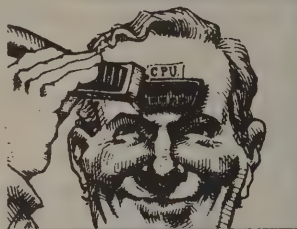
The authors outline a system of information services that could become available relatively soon to every household with a telephone. Most importantly, the authors (who consulted with a well-informed on-line brain trust that has debated these issues for years on computer networks) present a simple and bold plan for protecting civil liberties and equity of access as well as preserving competition in cyberspace.

The past several decades have taught us that decisions about technologies can ripple out to change fundamental aspects of our lives. Most of what we have learned has been illuminated by the power of hindsight — the social impact of the telephone and the culture-shaping power of television were not fully understood until many years after their introduction. Now we have the benefit of well-informed and public-spirited people who understand the nature of the technologies that are emerging from the laboratories, and who have visions of political and regulatory safeguards that could allow us to actively shape the new technological regime, rather than passively waiting for it to do to us what it will do.

In WER #70, Roger Karraker's "Highways of the Mind" introduced the issues involved in the National Research and Education Network (NREN) debate in Congress. That article has been passed around Washington, circulated electronically, reprinted by librarians and activists; it seems to have had some effect in helping to draw attention to the cultural and political benefits of a truly public communication network of the future. But NREN is a half-billion-dollar R&D program to create fiber-optic super-highways linking supercomputers — a massive project to create a whole new communications system. The system proposed here, a National Public Network, could be an "NREN for the rest of us."

The EFF (WER #71, p. 40, "The Electronic Frontier Foundation and Virtual Communities") is a public-interest organization established in 1990 to educate the public about the democratic potential of new computer and communication technologies. EFF works to maximize freedom, competitiveness, and civil liberty in the electronic social environments being created by these new technologies. For more information, write EFF: 155 Second Street, Cambridge, MA 02141. —Howard Rheingold

We Need A National



Matt Wuerker

IN THE PAST, new communication technologies such as the telephone and television have evolved into industries and regulatory structures that are frozen into place before most people understand the way these media affect their lives. By then, it is too late to shape policies. Because we are at a historical crossroads of telecommunication

policy, and because citizens today are unusually well-informed with regard to the potential of new communication technologies, we have a rare opportunity to shape this new medium in the public interest, without sacrificing diversity or financial return.

The Infrastructure Challenge

The telecommunications policy debate has largely been framed as a struggle among entrenched commercial interests over who will control and dominate markets such as information services, manufacturing, and long-distance service. With the following proposal, we hope to refocus the debate by defining public goals and specific steps that can be taken to achieve them. Public policy should be guided by an overarching social vision of what we call the National Public Network, a vibrant web of information links to serve as the main channels for commerce, learning, education, politics, social welfare, and entertainment

BY MITCH KAPOR,
JERRY BERMAN, &
DANIEL WEITZNER

1. *Create an open platform for innovation in information services by speedily deploying a nationwide, affordable "Personal ISDN"*

To achieve the information diversity currently available in print and broadcast media in the new digital forum, we must guarantee widespread access to a platform of basic information services. Such a platform offers the dual benefit of helping to create opportunities for competition in the information-services market, and stimulating the development of new services.

Some suggest that the technology necessary to offer such a platform is far from realization, and that it would require billions of dollars of investment in fiber optics. Actually, we have a platform within our reach right now. An Integrated Services Digital Network is a means of using the existing copper telephone wires that run into most homes as a channel for communicating both voice and data — text, video, graphics. Personal ISDN could make voice, data, video, high-speed fax, and multimedia services available *today* to telephone subscribers all around the country. ISDN as a key information-services technology is well known in the communications industry, but its potential as a universal platform is not properly appreciated, nor has it been properly priced and positioned by the Regional Bell Operating Companies (RBOCs) as a basic service for everyone, including consumers and small businesses.

The most valuable contribution of the 1980s computer industry was not a machine, but an idea — the principle of open architecture. Typically, a hardware company neither designs its own applications software nor requires licenses of its application vendors. Instead, the hardware company creates a "platform" — a common set of specifications, published openly so that smaller, independent firms can develop products to work with it. In this way the host company profits from the smaller companies' ingenuity and creativity.

In the early stages of development of an industry, low barriers to entry stimulate competition. It should be as easy to provide an information service as to order a business telephone. Large and small information providers will probably coexist as they do in book publishing, where the players range from multibillion-dollar international conglomerates to firms whose head office is a kitchen table. Large and small publishers can coexist because everyone has access to

production and distribution facilities — printing presses, typography, and the U.S. mails and delivery services — on a nondiscriminatory basis.

To achieve the information diversity currently available in print in the new electronic forum, we must guarantee widespread accessibility to a platform of basic services necessary for creating information services of all kinds. The platform offered must have these key characteristics:

Public Network

in the future. This network will include the existing voice telephone service, along with video images, sound, and hybrid forms of communication.

We need more than just safeguards, entry-level tests, or new telephone-company investment in information services and fiber optics. In order to ensure a level playing field, encourage diversity, and safeguard the freedom of users, we must build an open telecommunications platform upon six principles:

- ☛ establish an open platform for information services by speedy deployment of "Personal ISDN (Integrated Services Digital Network)" nationwide;
- ☛ ensure competition in local exchange services;
- ☛ promote First Amendment free expression by reaffirming the principles of common carriage;
- ☛ foster innovations that make networks and information services easy to use;
- ☛ protect personal privacy; and
- ☛ preserve and enhance equitable access to communications media.

Critical Mass of Features

Existing ISDN standards, once fully implemented, offer switched, high-speed, error-free data communications which can deliver a variety of advanced information services. Many of the capabilities once thought to be possible only on an all-fiber network, such as interactive full-motion video, can be achieved to a significant degree over Personal ISDN. Continuing revolutions in compression technology make it possible to use copper-wire-based ISDN to carry video signals to their destination, at which point they are uncompressed through use of increasingly inexpensive processors, which are built into computers, televisions, and other consumer electronic equipment.

Ubiquity

To create a market for information services, everyone must be able to reach the platform. We must build the new public network by making it easy for people to connect to it with a few simple decisions. An analogy to the personal-computer market is helpful. Minicomputers and mainframes were marketed to companies. Microcomputers (PCs) were marketed to individuals. Personal ISDN can reach into every home and every small business without laying a single mile of fiber optic cable. Telephone-company data indicates that over the next three years a majority of central office switches will be upgraded to the requisite digital capability.

Affordability

Even if they are ubiquitous, platform services are useless unless they are also affordable. Just as the voice-telephone network would be of little value if only a small fraction of the country could afford to have a telephone in their home, a national information platform will only achieve its full potential when a large majority of Americans can buy access to it. All the available information indicates that ISDN can be priced as a basic service. The cost of carrying a digital ISDN call from the customer to the local switch is just

the same as an analog voice call in the digital switching regime that ISDN presupposes. There are some fixed investment costs still to be incurred in order to upgrade the nation's central office switches to handle ISDN traffic, but commitments to these investments are largely already made.

What is needed is a new standard, minimum platform for information exchange. ISDN must be repositioned as a basic service, available to consumers and small businesses. This service can be the test bed for a whole new generation of information services that could benefit the American public.

2. Ensure competition in local exchange services

Many consumer and industry groups are concerned that as the MFJ (Modified Final Judgment — the Justice Department's breakup of AT&T) restrictions are lifted, the RBOCs will come to dominate the design of the emerging National Public Network, shaping it more to accommodate their business goals than in the public interest. The bottleneck that RBOCs could create on local exchange services critical to information providers can be minimized by unbundling these services and allowing non-BOC providers to offer them in competition with BOC local-exchange companies.

Some suggest that an entry-level test is necessary to guarantee that alternative infrastructure is developed for information-services delivery. Alternative pathways are a useful and necessary part of our telecommunications infrastructure, but first and foremost we must find ways to open up the existing public switched network to competition at all levels. Competition will promote innovation in the services on which information providers rely, and help guarantee equal access to all local-exchange facilities. The post-divestiture phone system offers us a valuable lesson: a telecommunications network can be managed effectively by separate com-

panies — even including bitter opponents like AT&T and MCI — as long as they can connect equitably and seamlessly from the user's standpoint. Together with the open platform offered by a Personal ISDN, unbundling and expanded competition are keys to ensuring equitable access to local-exchange services needed for information-service delivery.

3. Promote First Amendment free expression by affirming the principles of common carriage

In a society which increasingly relies on electronic communications media as its primary con-

How to Get Information

"Open Platform Overview"

This is the document you are now reading. It summarizes our policy recommendations for the creation of a ubiquitous, affordable, open telecommunications platform based on ISDN. A slightly different version was printed in *EFFector 2.01*. Additional copies may be obtained via electronic mail: send a message to archive-server@eff.org, any subject, with body: send documents open-platform-overview. Or via anonymous ftp from [eff.org/pub/docs/open-platform-overview](ftp://eff.org/pub/docs/open-platform-overview).

"Testimony of Mitchell Kapor Before the House Subcommittee on Telecommunications and Finance Regarding Telecommunications Infrastructure Legislation and Proposals"

This is the complete testimony presented to Congress, which is the full text from which the "Open Platform Overview" was prepared. Via electronic mail: send a message to archive-server@eff.org, any subject, with body: send doc-

duit for expression, full support for First Amendment values requires extension of the common-carrier principle to all of these new media. Common carriers are companies that provide conduit services for the general public. The common carrier's duties have evolved over hundreds of years in common-law and, later, statutory provisions. The rules governing their conduct can be roughly distilled to a few basic principles. Common carriers have a duty to provide services in a nondiscriminatory manner at a fair price, interconnect with other carriers, and provide adequate services.

uments open-platform-testimony. Or via anonymous ftp from [eff.org/pub/docs/open-platform-testimony](ftp://eff.org/pub/docs/open-platform-testimony).

EFFector Online

This is the regular newsletter of the Electronic Frontier Foundation. We will continue to report progress on the Open Platform initiative here. Via electronic mail: send mail to eff-news-request@eff.org requesting to be put on the mailing list. Via Usenet: comp.org.eff.news.

IBT mailing list

The Internet Brain Trust moderated mailing list is being organized as a forum for discussion on the Open Platform. To join the list, please send mail to ibt-request@eff.org.

The IBT archive will be available via anonymous ftp from [eff.org/pub/ibt](ftp://eff.org/pub/ibt).

General information about the EFF, including membership information

Via electronic mail: send mail to archive-server@eff.org, any subject, with body: send EFF.EFF.about. Or via anonymous ftp from [eff.org/pub/EFF/EFF.about](ftp://eff.org/pub/EFF/EFF.about).

The communications carriers that make up the critical elements of the public switched network — local-exchange and interexchange companies — should be subject to comprehensive common-carriage duties as described above. (Not all communications carriers, however, are necessarily common carriers.)

Unlike the arrangement found in many countries, our communications infrastructure is owned by private corporations, rather than by the government. Therefore, legislatively imposed expanded duty of common carriage on public switched telephone carriers is necessary to protect free expression. A telecommunications provider under a common-carrier obligation would have to carry any legal message regardless of its content, whether it were voice, data, images, or sound. For example, if full common-carrier protections were in place for all of the conduit services offered by the phone company, the termination of "controversial" 900 services such as political fundraising would not be allowed, just as the phone company is now prohibited by the Communications Act from discriminating in the provision of basic telephone services.

4. Make the network simple to use

From a user's perspective, one of the great virtues of today's public switched telephone network is that it operates according to patterns and principles that are now intuitively obvious to almost everyone. As this network grows beyond voice services, information services that become part of this network should reflect this same ease of use and accessibility. The development of such standards and patterns for information services is vital, not just because it helps makes the network easier to use, but also because it ensures an open platform for information providers. However, standards development will be ad hoc and even chaotic at first. Numerous standards may be tried and found

inadequate by users before a mature set of standards emerges. Congress and government regulatory bodies may need to set out the ground rules for standards planning in order to ensure that all interested parties have an equal voice, and the resulting standards should be closely analyzed to make sure that they reflect public needs. But direct government involvement in the process should be as limited as possible.

5. Protect personal privacy

As the National Public Network develops, there are threats to both communications privacy and information privacy. First, electronic communications meant to be private can be intercepted without the consent or even the knowledge of the communicating parties. The privacy of telephone conversations and electronic mail is already protected by the Electronic Communications Privacy Act. However, communication in other media, such as cellular-phone conversations, can be intercepted using readily available technology by private third parties without the knowledge or consent of the conversants. Second, as the public switched telephone network is used for an increasing variety of transactions, it will hold more personal information about consumers. We need to give citizens greater control over information collected, stored, and disseminated by telephone companies and information providers. As the public outcry over Caller ID demonstrates, citizens want and deserve adequate notice about what information is being collected and disseminated by communications firms, and must be able to exercise informed consent before information collected for one purpose can be used for any other purpose.

6. Preserve and enhance equitable access to communications media

The principle of equitable access to basic services is an integral part of the nation's public switched telephone network. We must en-

sure that all Americans have access to the growing information-services market. Some paint a vision of the future in which all citizens have access to education services, such as distance learning or on-line health care services. Nei-

ther market competition nor lifting restrictions on telephone companies alone will deliver these services. It is time for those who propose serving the

"information have-nots" to admit that equity cannot be achieved except by legislative mandate and public funding. ♦

Computer Mediated Communications

While this book is probably not of interest to the telecommunications novice, it is a storehouse of information for a person who has been involved with computer-mediated communication systems (CMCs) and wants to learn more. The book covers the full range of CMCs: electronic mail, computer conferencing, information retrieval, microcomputer bulletin-board systems, and distributed computer networks.

Each system is examined from its historical origins to present and future applications. Several chapters present selection criteria for CMCs in corporate or personal applications, and comparisons with other methods of communication, such as voicemail and fax. Appendixes list names and addresses of hardware, software, and service vendors mentioned in the book.

Although it touches briefly on the growing "virtual community" of conferencing systems, recent FBI impounding of computer bulletin-board systems, and the reluctance of corporations to move towards CMCs due to automatically generated audit trails, this book is primarily concerned with the technology and specifications of CMCs and focuses less on their social implications.

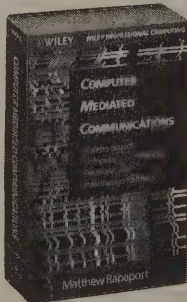
—The Normals™

- In 1971 the Nixon administration's wage and price freeze generated a sudden demand for communications and coordination among private sector business, labor groups, and government policy makers. To coordinate the activities of the departments involved, and because of the need to handle reporting and dissemination of information, the Office of Emergency Preparedness (OEP) commissioned Murry Turoff to develop a computer-based version of the voice conference call. The result was EMISARI, the Emergency Management Information and Reference System, widely recognized today as the prototype computer conferencing system.

- If it becomes relatively inexpensive to contact any machine anywhere in the country (or world) at 9600 bps, systems must distinguish themselves with specialization.

Almost everyone will be able to mount lots of files, though extraordinary numbers, 100,000+, will remain an area of specialization. Small systems are already powerful enough to mount some large databases, or small, unusual ones. An example of "unusual" would be the definitive list of pancake recipes, or a cross-reference of all hotels and the kind of telephone wall connectors they have in their rooms. Many systems are far more sophisticated. There are BBSs dedicated to botany, zoology, satellite tracking, bacterial classification, job hunting, and many, many more.

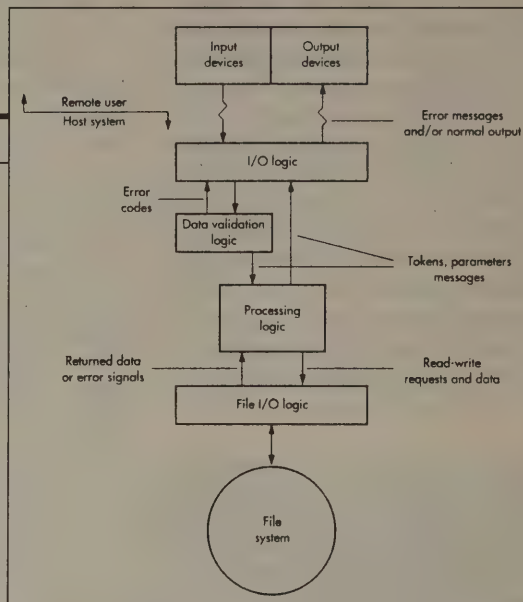
Also in the picture is the US government, with BBS systems specializing in earthquake epicenter reports, solar flare activity, manned space launches, shipping manifests and port activity (Appendix D contains a list of some government operated BBS systems). Games, electronic mail gateways, weather and tide information, and shopping, dating, and travel services are examples of other potential specialization areas.



Computer Mediated Communications

Matthew Rapaport, 1991; 373 pp.

\$34.95 postpaid from John Wiley & Sons, Inc./Eastern Distribution Center, 1 Wiley Drive, Somerset, NJ 08873; 908/469-4400



Matrix News

Computer networks are proliferating even faster than humans: John Quarterman's heroic compendium, *The Matrix*, was the first and perhaps the last attempt to put together a non-electronic guide to the worldnet. A one-minute browse through Quarterman's directory of the world's virtual communities changes your mind about the size of the net, and its global ubiquity.

The state of the net, and the issues this new communication medium raises as it evolves, are dynamic, to say the least. Here's one great tool for keeping up. Not for the completely hardcore readers who argue about communication protocols, and not for the totally uninitiated who have never plugged a computer and a telephone into a node of net, *Matrix News* is a twelve-page paper newsletter that arrives in your snailmailbox once a month. "*Matrix News* is about contextual issues related to computer networking; preferably issues that cross network, organizational, or political boundaries. We cover art, education, and sociology; law, public policy, and economics, and anything else that fits," editor Quarterman promises.

—Howard Rheingold

- What will we do and be in this new country of the mind? Fear and anger will accom-

Connections

Computer-mediated communications (CMC) are changing the way some people think, and the way they work together. People who have used the medium have our own notions about these changes, but we don't have a body of systematic research about the social effects of CMC. **Connections** might be the seed crystal of that knowledge.

Don't expect this to be a popularization or an exciting read; the authors, computer-communications-savvy sociologists, have different intentions. Sara Kiesler and Lee Sproull are opening a new intellectual discipline, using the kind of rigorous observation required by social-science journals, to understand the interpersonal and intraorganizational effects of CMC. How do workgroups make decisions face-to-face, and how do they make decisions via electronic-mail distribution lists or computer conferences? Which kinds of decisions are best suited for each medium? Most importantly, how are these changes in communica-

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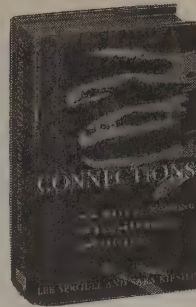
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Connections

Lee Sproull and Sara Kiesler, 1991; 212 pp.
\$19.95 (\$22.95 postpaid) from The MIT Press, 55 Hayward Street, Cambridge, MA 02142; 800/356-0343

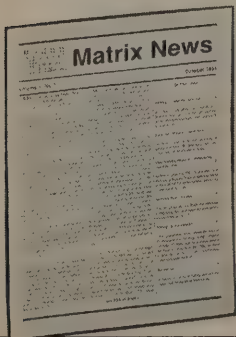
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Matrix News

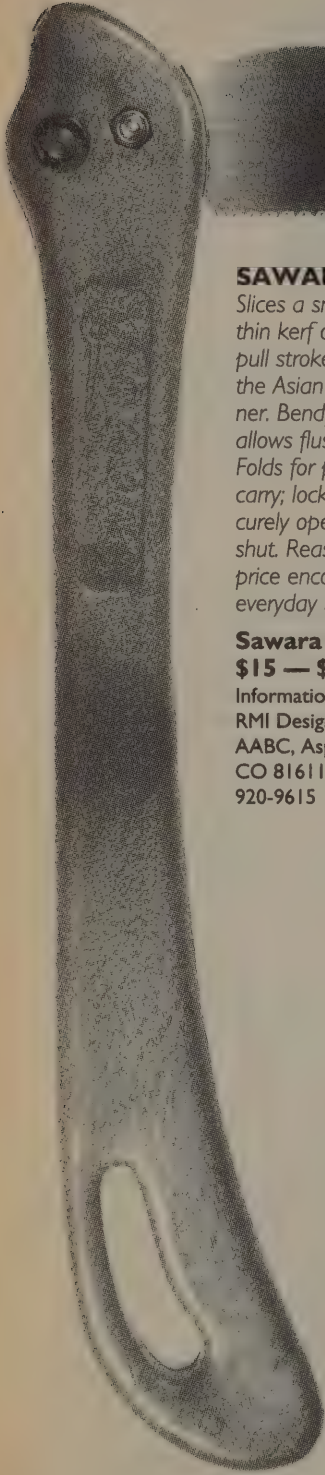
John S. Quarterman, Editor.

\$30/year (12 issues) from Matrix Information and Directory Services, 701 Brazos/Suite 500, Austin, TX 78701-3243



INTERESTING STUFF

BY J. BALDWIN



SAWARA

Slices a smooth, thin kerf on the pull stroke, in the Asian manner. Bendy blade allows flush cuts. Folds for pocket carry; locks securely open or shut. Reasonable price encourages everyday use.

Sawara Saws \$15 — \$24

Information from RMI Design, 411 AABC, Aspen, CO 81611; 303/920-9615

TIGERPAK

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Reduce Inventory with the Carton Reducer

Reduce your box inventory by making small cartons out of large ones with this carton reducer. Its design lets you score the inside walls to fold the carton accurately without weakening the sides. This reducer helps economize on boxes and lessens the need for unnecessary void fill.

ZR795 \$17.50

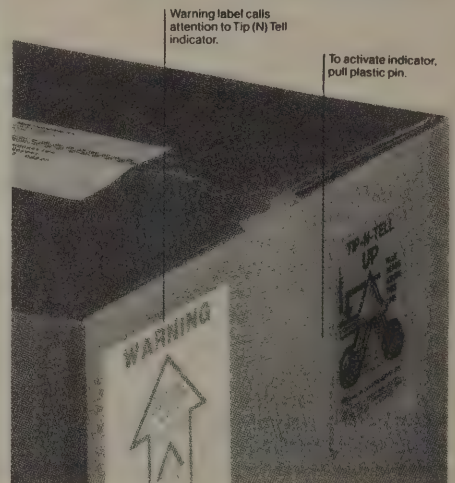
Tip (N) Tell Warning Labels Alert You to Shipping Damage

10% OFF

This complete warning system consists of two labels along with the Tip (N) Tell indicator. One label is affixed to the shipping container to explain the indicator's function, while the other is attached to the bill of lading to give notice that the shipment is being monitored. The indicator itself is affixed to the container and registers if it has been tipped or overturned during shipment.

Product Number	Sets Per Ctn.	Price Per Set			
		100	500	1,000	5,000
ZTNT	100	\$0.95	\$0.85	\$0.80	\$0.75

Prices in red already reduced 10%

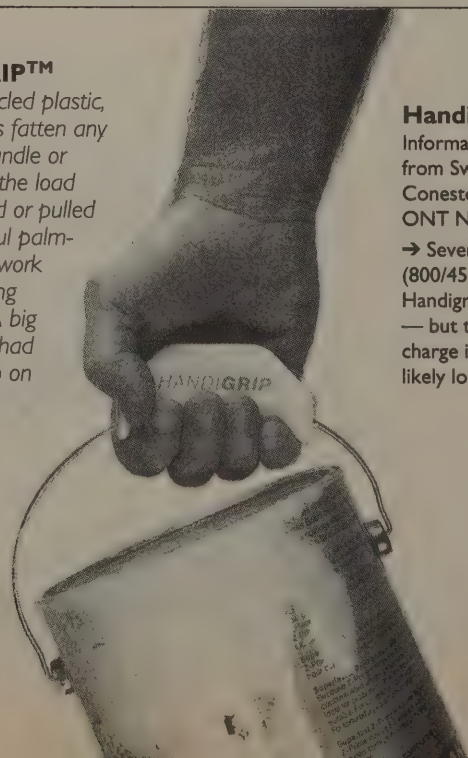


Warning label calls attention to Tip (N) Tell indicator.

To activate indicator, pull plastic pin.

HANDIGRIP™

Made of recycled plastic, these puppies fatten any skinny bag-handle or box-string so the load can be carried or pulled without painful palm-cutting. They work fine for carrying sheet stock. A big order can be had with your logo on each handle.



Handigrip

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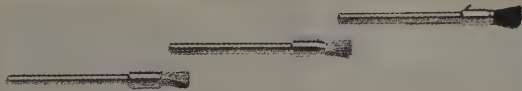
→ Seventh Generation (800/456-1177) sells Handigrips at two for \$1.95 — but the minimum shipping charge is \$3.75. Check with likely local shops.

TORRINGTON BRUSHES

Bristle city — artist's sables to floor brooms. No minimum order.

Torrington Brushes

Catalog free from Torrington Brush Works, P. O. Box 56, Torrington, CT 06790; 203/489-1089



67021 SERIES

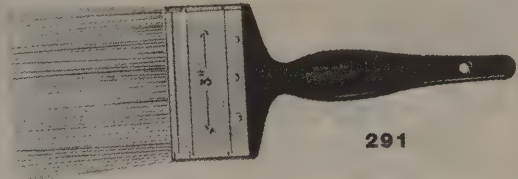
MINIATURE END BRUSHES

Miniature end brushes for small chuck cleaning jobs. Available in four bristle filaments — stiff horsehair, brass, stainless and nylon.

MARINE ENAMEL BRUSH

100% PURE WHITE CHINA BRISTLE

High quality White Tsingtao or Shanghai bristle. Excellent brush for high quality finish. Used extensively by marine finishing industry.



291

CATALOG NO.	SIZE	THICKNESS	LENGTH OUT	PRICE DOZEN
291	1"	7/16"	2 1/4"	\$ 24.24

DOOR REINFORCERS

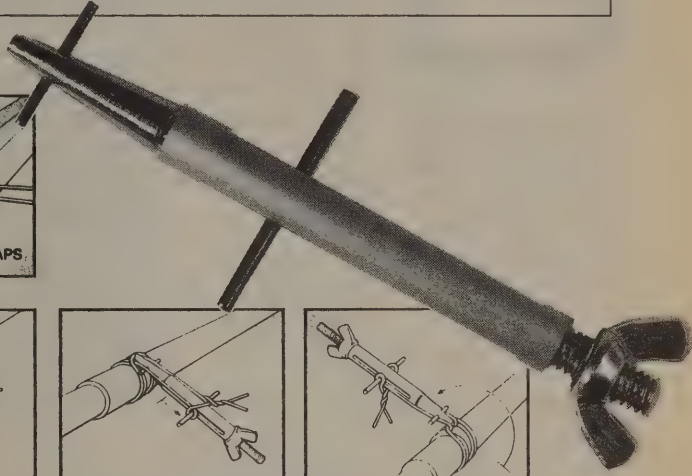
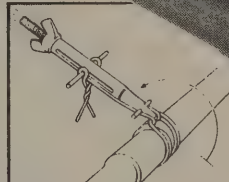
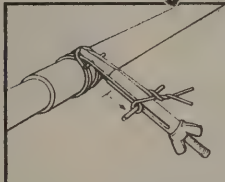
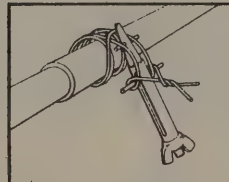
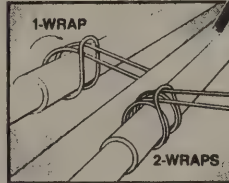
Most any locked door can be opened with a Rhett Butler kick if the wood surrounding the latch and the strike plate gives way. These reinforcements will help if the idea is to keep Rhett out. Easily installed, they come in several styles.

[Suggested by Roger Knights]

MAG

Home Security Products

Available from locksmiths and hardware stores; information from M.A.G. Eng. & Mfg., 15261 Transistor Lane, Huntington Beach, CA 92649

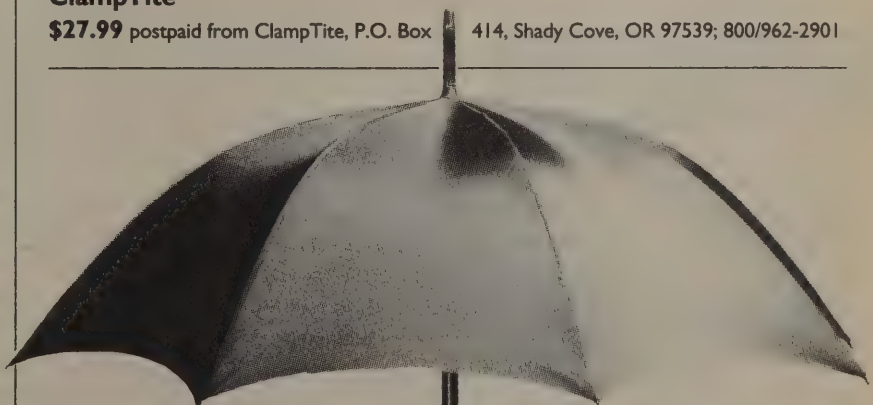


CLAMPTITE™

Bind, splint and bundle just about anything to anything, using wire up to coathanger thickness. The ClampTite is rustproof and more versatile (handles more wire sizes; can apply multiple wraps), but a lot more expensive than the similar Haywire Klamper we reviewed in WER #46 (p. 72).

ClampTite

\$27.99 postpaid from ClampTite, P.O. Box 414, Shady Cove, OR 97539; 800/962-2901



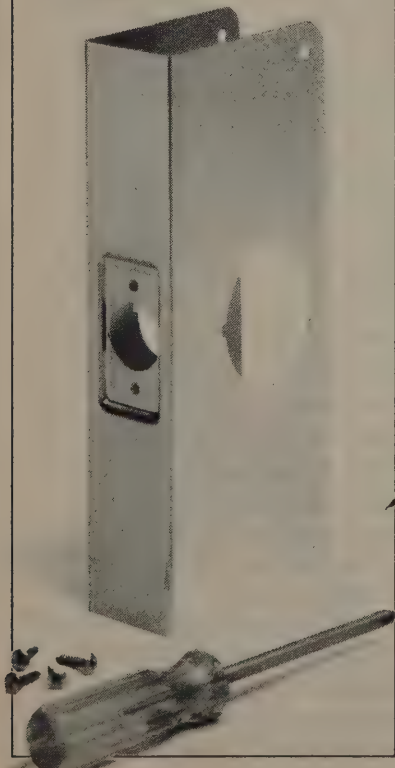
BRIGG UMBRELLAS

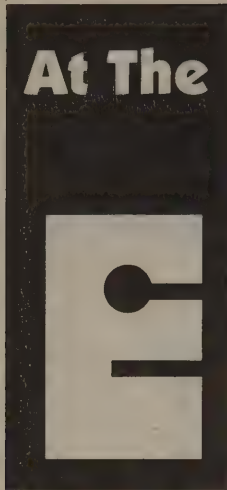
If you use one a lot, why not get the very best and have it last awhile? Necessity and tradition combine here in the exemplary manner that the British still occasionally do so well. You'll do the Mary Poppins before a

Brigg will turn inside out (and if it does, there's a lifetime guarantee).

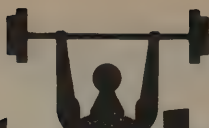
Brigg Umbrellas

\$100 — \$1400 from Saks, Bloomingdale's, Bergdorf's, and other haunts of the moneyed





Robot Olympics



John Malyon is a Toronto writer and computer analyst with a long-standing interest in the interplay between technology and human consciousness. He notes that "my primary interest is psychology, and the conceptual dead-ends in robotics — irresistible anthropomorphism, grand theorizing, overspecialization in the Micromouse event — are what I find most interesting."

The next Robot Olympics will be held in fall 1992 or

EVERYBODY EXPECTED THAT THE FIRST TRUE CHILD born of the electronic computer would be the robot, a metal man to stand at the pinnacle of machine evolution. Today, more than a generation after computers appeared on a mass scale, the dominant image of robots is still that of an artificial human being, usually recognizably male.

A few people are working to change that. They are subverting anthropomorphic visions of what robots should be by building nervous systems into customized toys, developing tiny robots more akin to insects than to humans, creating bizarre devices for the sheer joy of watching how something that has never existed before moves.

Last November, inventors from across North America gathered in Toronto for the BEAM/IEEE Robot Olympics, the first event of its kind in North America. Robots competed for honors in fifteen events — jumping, rolling, fighting, climbing, walking, racing against each other and solving problems.

The people who build these robots are not striving for "intelligent" behavior. (Simply trying to define what that is leads to endless theoretical arguments.) Instead, they prefer to encounter "interesting" behavior, an "unscholarly" term with specific connotations: unexpected, complex, worth exploring.

Mark Tilden, with his red ponytail, beard, and raw exuberance, stands out in the crowd; he is the driving force behind this Olympics. He has worked for the last year to

round up potential competitors, obtain sponsorship, publicize the games, and have them named an official IEEE (Institute for Electrical and Electronic Engineers) conference.

Tilden doesn't like to give formal speeches, but he cares so deeply about robotics and the whole act of creation that it is easy to get him started. A yes-or-no question can lead to a thirty-minute answer; a demonstration of some of his inventions can draw the entire room around him for an hour.

"The thing that I want to do here is wake up people as I was awakened when I was eight years old." Waking them up means shaking

people out of their passivity about technology. All around us are incredible new tools that anybody can understand and use. For example, the rattler in a pocket-pager uses an amazingly small motor (the size of a pencil eraser). Ultrasound focusing units liberated from cameras can be used to measure the distance to objects, eliminating the need for expensive stereoscopic vision systems. When you become attentive to what's around you, a whole new world suddenly opens up.

Growing up in the country, without access to a library or anyone to ask for help, Tilden taught himself how to take things apart and put them back together. He learned to black-box electronics, using a power meter to test and probe and analyze, always concentrating on finding out what things do and how to use them, rather than on the theory behind them.

Even today, he prefers to pirate high-tech gadgets for useful components; they're cheap and plentiful, and the quality often exceeds that of anything available in electronics supply stores. Take a musical greeting card as an example. Rip it open and you will find a speaker connected to a small chip. The chip is connected to one terminal of a tiny battery, and a slip of plastic prevents its connection to the other terminal. When the card is opened, the slip pulls back — closing the circuit — and the music starts.

Tilden started playing with one of these cards, and found an unused pin on the chip. This turned out to be its clock input. By attaching a small capacitor between this pin and ground, he could slow down the tempo, even to the point that the chip went to sleep for hours. While dormant it used so little energy that Tilden was unable to measure it. For this reason, he now uses this type of chip as an ultra-low-power heartbeat device for his solar-powered robots. Instead of con-

BY JOHN MALYON

spring 1993. Event rules should be available by the time you read this. Copies of the 1991 event rules are still available for \$10 (US) postpaid. BEAM Robotics can be contacted through Mark Tilden, MFCE, University of Waterloo, Ontario, Canada N2L 3G1.

John Malyon's e-mail address is jmalyn@well.sf.ca.us —Howard Rheingold



■■■■■■■■■■ The Micromouse

In the Micromouse race, robots must negotiate a standardized maze in the shortest possible time. It is the only established competitive event in robotics — this Robot Olympics actually grew out of an annual Micromouse competition.

It is a strange event. The Micromouse is clearly adapted from a standard rodent “intelligence” test, but in fact robot mice and live mice have almost exactly opposite capabilities. The primary challenges for a robot are cognition (determining where the walls are) and locomotion (moving and turning precisely), while it is impossible to imagine even the dullest mouse crashing into walls or getting stuck in dead-ends. On the other hand, learning the maze and remembering it — which is what the mazes were originally designed to test — are trivial tasks for a robot controlled by a computer: once it has solved the maze, it literally cannot forget the correct path unless specifically instructed to do so.

Over the last ten years or so, researchers around the world have devoted enormous energies to this event, and

it has gradually evolved away from being strictly a maze-solving contest: entrants have fifteen minutes to make up to ten runs through the maze; only the fastest run counts. The winning entry, Mousemobile II (by Louis Geoffroy and Martin Pottie), used what has proved to be the optimum strategy: browse around for a few minutes and determine the shortest path to the goal, and then make the same run over and over at higher and higher speeds until you crash (to cheers from the crowd).

Two entries sacrificed speed for innovation. Giraffe, entered by British Columbia’s Simon Fraser University, was a tall robot that used a toy video camera to peek over the walls of the maze. The camera, a cannibalized Fisher-Price Handy Cam, produces a grainy image, but that image happens to be *digital*. This makes it ideal for use in robotics.

The other offbeat strategy was employed by Mark Tilden’s HDL, which has no computer chip at all. Instead, seven simple circuits, operating in parallel, control the actions of the mouse in such a way that it can eventually solve the maze. Most robots maintain an

stantly checking the level of energy in the fuel cell (draining the cell as quickly as it can fill itself), the circuit wakes up every so often and checks the level; if no action is required it goes back to sleep.

Generally, the idea behind black-boxing is to get the chip to exhibit its entire range of behavior. Connect things together at random and listen to what comes out over the speaker. Probe things which appear to be functional but unused. Or zap chips with high voltages. If the voltage is too low, nothing happens. If it’s too high, the chip is destroyed. But there is an interesting range (maybe five to ten volts) where you might break the chip out of its default program.

Rob Norton also scavenged cleverly for his entry, Alf 91, which won the Most Innovative Design award and the Obstacle Avoidance competition. Alf uses five eyes (sonar auto-focusing devices which Norton purchased, with documentation, from Polaroid) to navigate smoothly through buildings. Almost every robot here uses some kind of recycled technology.

The Micromouse race is a strange event. The winning entry used what has proved to be the optimum strategy: browse around for a few minutes, determine the shortest path to the goal, then make the same run over and over at higher and higher speeds until you crash.

internal model of their universe, as humans do. Tilden's mouse, in contrast to this, does not know or care that it is in a maze.

■■■■■■■■■■ The Solaroller

In this race, entrants must design a robot which can travel one meter as quickly as possible using a maximum of 1.25 square inches of solar panel as a power source. The idea is very simple, but a working Solaroller is an example of a solar engine able to power itself from ambient light. It can form the basis for more complex robots.

Solar energy output can, in effect, be amplified. One and one-quarter square inches of even the most efficient solar panel can scarcely turn a motor, let alone provide the force to propel a Solaroller. However a "relaxation oscillator" circuit can accumulate current in a capacitor while the Solaroller is at rest, and release it into the drive motor all at once. (You can recover highly efficient motors for Solarollers from dead Walkmans, pagers and CD players.) The Solaroller needs only enough intelligence to know when it has stored enough energy to travel one meter.

Ghanshyam Patel's Ghost Rider won the Solaroller competition in 13.8 seconds (10 seconds of which were spent charging the fuel cell). The silver medal went to Spiker I, the joint entry of Allison (age ten) and Mellisa (age seven) Spike.

Robots slightly more complex than the Solaroller can enter the Phototropic (light-seeking) competition. Entrants are judged on behavior demonstrated in a Micromouse maze illuminated by two light sources. For this event the maze is modified to include ledges, caves, obstacles, and other robots. Anne Wright of MIT won with Little Robot Creature, which chased light sources it detected with an electric eye.

■■■■■■■■■■ Subsumption Architecture

Conventional robotics uses a "top-down" approach in which the designer visualizes the end product, and then breaks it down into tasks which can be attacked separately. These projects tend to be large, expensive, and inflexible — hence unlikely to yield interesting results or unanticipated solutions.

The designs tend to be highly centralized (based upon what one researcher calls the "folk psychology" of a single, all-controlling mind). This creates a speed problem when

applications start to get complex. A robot may be remote-controlled simply because it can't support the weight of a computer fast enough to run it.

One alternative to this approach is the idea of "subsumption architecture," developed by MIT researcher Rodney Brooks. He believes it may provide a pathway to the development of viable artificial organisms. Its basic principle is that new robots should not be built from scratch, but should consist of improvements made on existing working models.

For example, once you have built a Solaroller you might try tying two of them together, pointing in opposite directions, with the solar panels angled so that each tends to pick up light from the direction it is facing. The Solaroller receiving the greater amount of light will recharge more quickly; thus the new "creature" will tend to move toward the stronger light source. In this way a very simple change results in significant adaptation — a strategy for seeking out food. Each new level of control in the robot subsumes the previous level without changing it.

You could add a further order of behavior by using a computer chip to switch on only one of the two Solarollers at a time. This would allow the creature to move either toward or away from light.

The idea is to find a path that will allow robot complexity to grow exponentially rather than incrementally. Computers are riding a tidal

BEAM Robotics is an organization founded by Mark Tilden to promote interest in a new approach to robotics, uniting Biology, Electronics, Aesthetics and Mechanics. Briefly, BEAM philosophy is:

(1) Create a robot that is a truly autonomous device. Ideally, it wouldn't even have an off switch. It would feed itself (e.g., with solar energy) and interact in its own way with the world. Set it loose and it could swim to Europe or walk to Tierra del Fuego.

(2) Look to biology for inspiration. Nature is an enormous library of successful survival strategies.

(3) Build a finished, simple working model of a robot. Then build on that robot to create a more sophisticated one. This path can eventually yield very complex creatures, and forces you to address nasty, real-world problems at each stage rather than getting carried away by elegant theory.

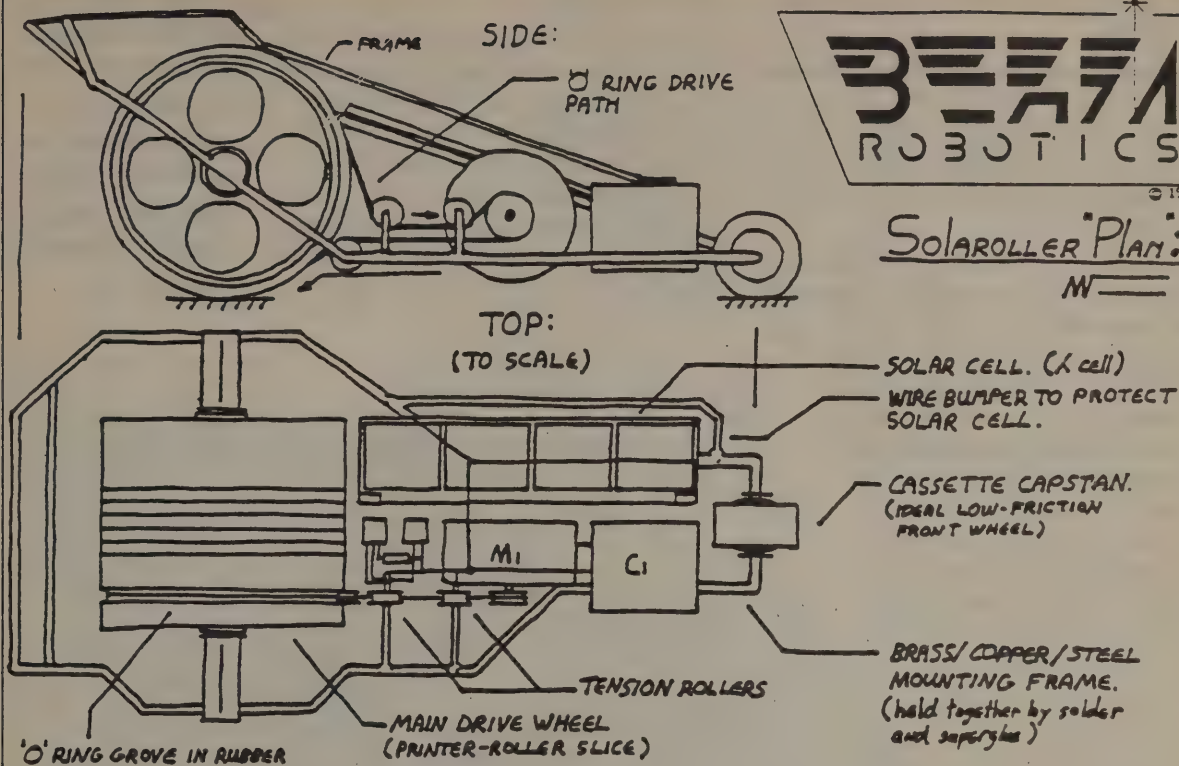
Rob Maljon



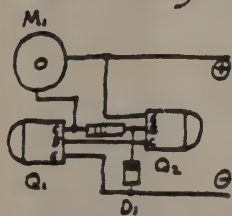
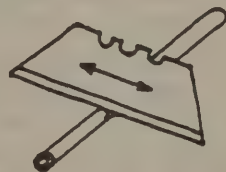
Mark Tilden, driving force behind 1991 Robot Olympics, exhorts an enthusiast. Tilden finds homebrew components in cheap techno-discards: autofocus cameras, musical greeting cards.

SOLAROLLER Plan:

W 91

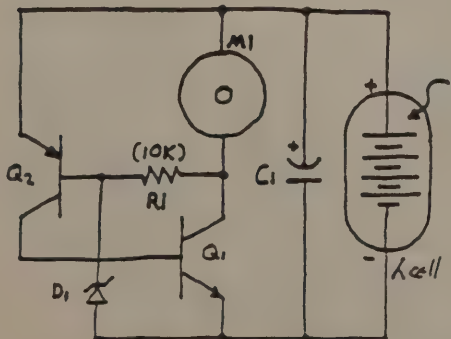


- 'O' Ring band drives are easier to make and more efficient than gear mechanisms because they spread the impulse motor force out more evenly. Tension rollers in this example are positioned to optimise friction on the drive wheels. Also, use proper 'o' rings, NOT ELASTICS.
- Brass tubing can be cut without crimping by rolling a dull X-ACTO blade across it along a desktop. Also, commercial brass tubing fits inside itself perfectly for tension rollers.



Using this topology, components can be directly connected together. No circuit-boards are required as the wire is strong enough to hold components well in place.

DRIVE CIRCUITRY:



- C_1 CAN BE ANYWHERE FROM 2200 μF TO 47,000 μF .
 - R_1 CAN BE ANYWHERE FROM 1.8K Ω TO 15K Ω . THE SMALLER THE RESISTANCE THE BETTER THE STARTING POWER, BUT MORE ENERGY IS THEN LOST IN THE TRANSISTORS.
 - Q_1 MUST BE A 2N2222 NPN } OR CLOSE SWITCHING-TRANSISTOR EQUIVALENT.
 - Q_2 MUST BE A 3906 PNP }
 - D_1 CAN BE ANY OF 1N4728 TO 1N4731.
- EACH DIODE REPRESENTS AN INCREASED 'TRIGGER' VOLTAGE. USUALLY, 1N4730 BEST FOR 3V X CELL.
- CIRCUIT SHOULD TRIGGER IDEALLY AT 2.7V ACROSS C_1 .

wave of increasing processing power, while robotics has seemed to stand still. Subsumption architecture holds the promise of moving forward without a revolution in mechanical technology.

This is analogous to the evolution of living creatures — it is not easy to go in and edit a biological system, which is already quite optimized and full of interdependencies, but it is quite possible to add a new layer to an existing system.

The “triune” structure of the human brain, as described by Carl Sagan in *The Dragons Of Eden*, is an example of this. The oldest and deepest portion of the brain is the reptilian cortex, which has remained essentially unchanged for hundreds of millions of years. Encompassing this is the mammalian cortex, which subsumes the reptilian cortex. It in turn is subsumed by the neocortex. Each higher layer does not *replace* previous layers, but builds on their abilities and modulates their function to produce more intelligent behavior.

It must be noted that while this structure makes possible the brain’s immense complexity, it is also responsible for the dog’s dinner of contradictory impulses that describes all of human behavior.

Other Robots of Interest

A couple of the robots entered were constructed of Lego. (Both were from MIT, which uses Lego in some of its engineering and design courses.) You can buy Lego add-on kits that contain tiny working machinery — the ultimate are the Lego Technic kits, which contain motors, axles, gears, pistons and joints.

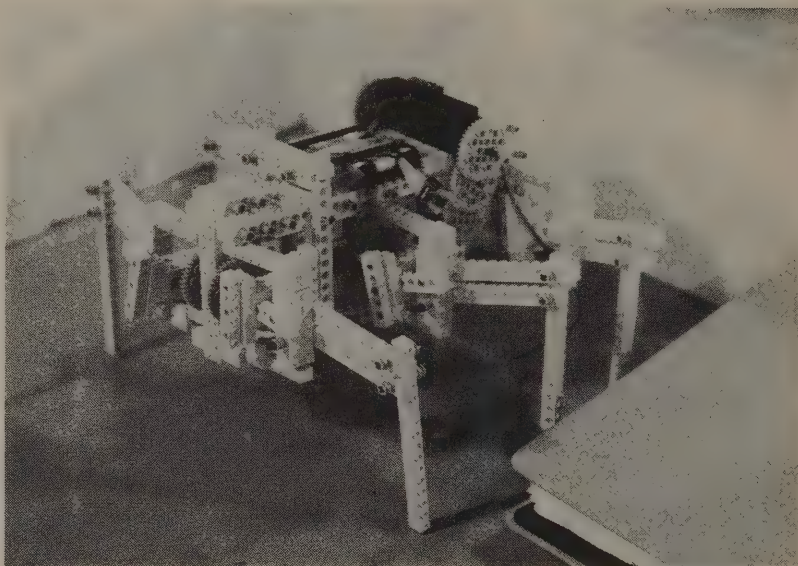
These entries also incorporated non-Lego components — various sensors and the circuitry necessary to give the robots a degree of intelligence. This is a perfect medium for sheer blue-sky experimentation, because of its extreme flexibility. The main challenge is to not give the robot too much speed or strength, or it will shake itself apart when it moves.

The Best Overall Design award went to Mike Plusch’s Lego robot Herbie. Plusch hopes to use it as a traveling science exhibit, in which children will be able to come up and reprogram Herbie, changing its behavior in different ways.

Spider took the gold in the Legged race. The Lego robot used a simple gait in which it moved alternating sets of legs to drag itself forward.

The silver medal in the Legged race went to Tilden’s HyperWalker, a customized model of a giant walking attack vehicle from *The Empire Strikes Back*. Tilden turned it into an intruder detector that detects interference in the ambient electromagnetic field generated by house wiring. This is possible with a simple field effect transistor, which can measure and detect any change to the intensity of

■■■■■■■■■■
The High Jump award went to Mark Tilden’s THAB (Tally-Ho Automatic Bedwetter — a prototype for a device which will jump onto beds and squirt water).



Rob Maljon

a signal. This was built to protect Tilden’s electronics from his cat: when the cat approaches, the Walker shrieks and starts to walk around.

A couple of Tilden’s robots won gold medals because they were unopposed in their class. The Rope-Climbing competition was won by his Solarspinner 1.0, and the High Jump went to his THAB (Tally-Ho Automatic Bedwetter — a prototype for a device which will jump onto beds and squirt water).

Instead of literally awarding medals to winners, BEAM gave out prizes such as a \$2,000 electronics development board, a laptop computer, and Japanese models of robot vehicles, patterned after tigers, lions, ostriches, crayfish, gorillas, and various insects. The models were chosen because they are easily customized; maybe next year the gorilla will return as a robot, competing in the Knuckle-Walking race. Or the cats might be back, entered in a Micromouse-Catching competition. ♦



A couple of the robots entered were constructed of Lego; both were from MIT, which uses Lego in some of its engineering and design courses. You can buy Lego add-on kits that contain tiny working machinery.

Zwirl

Zounds! A ball that is deliberately designed and constructed to be easy to catch. The spiral-grooved Zwirl throws easily too, even if you have small hands. Its benign squishiness renders it harmless to its operators and their surroundings. I expect an undisciplined hound would reduce the thing to crumbs in seconds. Minus the canine, the Zwirl provides the most unthreatening catch fun imaginable. (Field experience indicates that it's also good for a few yucks when surreptitiously introduced into a conjugal bed.) —J. Baldwin



Ben Winter conceived the design for the Zwirl a decade ago while contemplating an auger bit. He visited foam-toy factories with a prototype in 1984 but was told the design was too difficult to mass-produce. In 1986, after reclaiming the unused option purchased by Wham-O to manufacture the ball, Ben and his brother Gary started making experimental versions and hawking them. A major toy company now makes a similar ball, but this is the real thing.

Ben says the Zwirl's foam, which forms a rubbery skin, makes it tougher than other foam balls. Zwirls come in black and vibrant blue, yellow, orange, and cranberry red. Coming soon are half-size balls and "softer, cuter, squishier" balls in fluorescent colors. —Robin Bishop

Zwirl

\$9.95 (\$12.95 postpaid) from Zwirl International, 1200 Pepperwood Drive, Danville, CA 94506; 510/736-3526



Lots of Spin

Long Arm

Figure 1



Figure 2



Figure 3

Boomerangs

Would you believe a boomerang that you can throw indoors without maiming yourself, loved ones, or favorite Ming vazh? It's about ten inches in diameter, made of bendy plastic foam so light that it would be merely annoying if it hit you between the eyes. Finger-bending the blades adjusts the flight path to the size of any room — I managed to get a Fun-Fly to circle back neatly within a tiny bathroom. The flexible featherweightness makes Fun-Flys almost indestructible, though it might be prudent to avoid fireplace, wood stove or insolent cat. Of

course you can use 'em outdoors, too, but there is a Tri-Fly made of stiffer, much heavier plastic for that purpose.

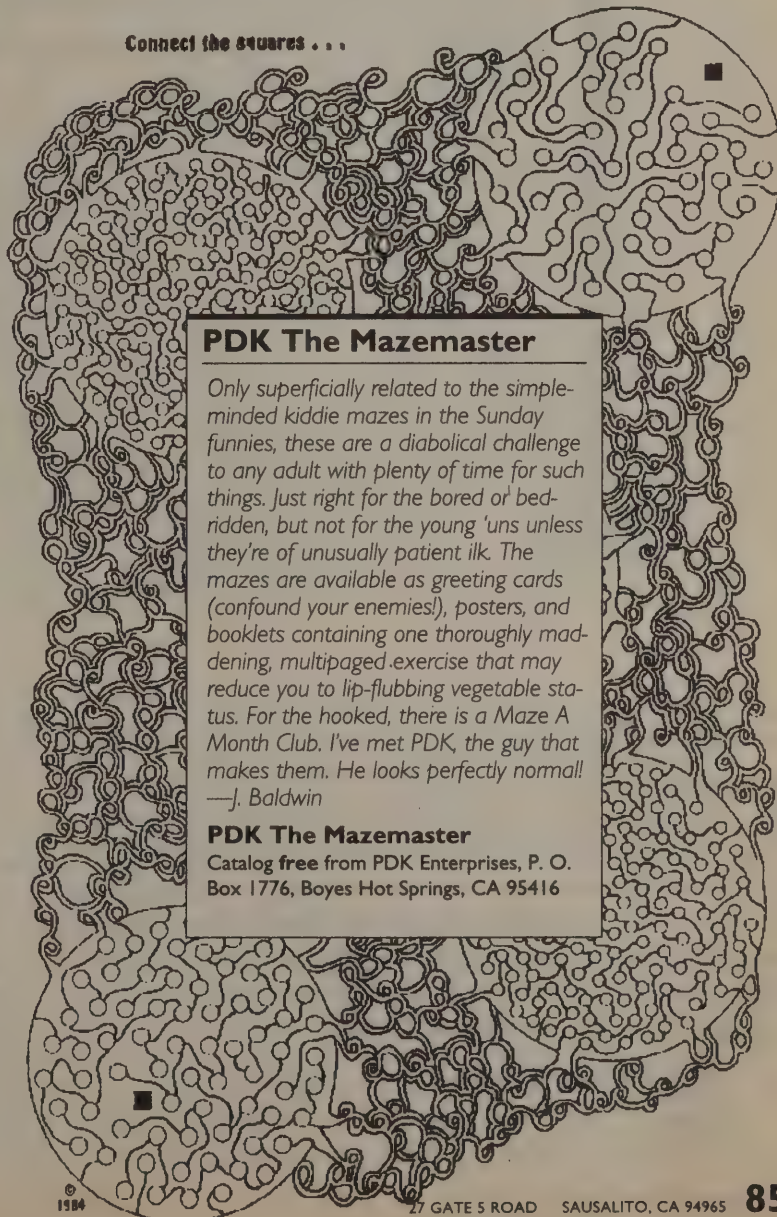
For yet more serious work, maker Eric Damell, boomeranger extraordinaire, still manufactures his famous Pro-Fly (Wizard II). Throw that one in your bathroom and all they'll find is your shoes and 100 lbs of sliced lunchmeat! —J. Baldwin

Fun-Fly (etc.) Boomerangs

\$3 — \$7 (approx.) at local toy stores.

Catalog free from Turning Point, Inc., Star Route, South Strafford, VT 05070

Connect the squares . . .



PDK The Mazemaster

Only superficially related to the simple-minded kiddie mazes in the Sunday funnies, these are a diabolical challenge to any adult with plenty of time for such things. Just right for the bored or bed-ridden, but not for the young 'uns unless they're of unusually patient ilk. The mazes are available as greeting cards (confound your enemies!), posters, and booklets containing one thoroughly maddening, multipaged exercise that may reduce you to lip-flubbing vegetable status. For the hooked, there is a Maze A Month Club. I've met PDK, the guy that makes them. He looks perfectly normal! —J. Baldwin

PDK The Mazemaster

Catalog free from PDK Enterprises, P. O. Box 1776, Boyes Hot Springs, CA 95416

The Vindication

THE TIME: NOW.

The place: a coffee house somewhere in the great beyond.

“

TOLD YOU it wouldn't work in Russia. You can't skip the capitalistic phase, Vladimir. In Russia you never got out of the feudal period; you went from nobles and serfs to party members and proletariat.”

“But Karl, we established the dictatorship to bring them up to date. They are backward. They are peasants. We had to do it all.”

“You don't understand. The capitalistic phase develops individual identity, Vladimir . . . ”

“Yes, Karl, for America, for England, and maybe even for Germany. But Russians are different. The national character . . . the inherent backwardness . . . the superstition . . . the ethnic problems. Look at them now, fighting over ethnicity. They don't think the way you and I do. They've lived in a modern world and yet they are still fighting old, dead, and forgotten wars. It's inherent, part of the culture: conservative and backward!”

“No! it's not inherent! It is learned. Look: as the means of production change, the relations of production change. These become the social relations of the society. Yes?”

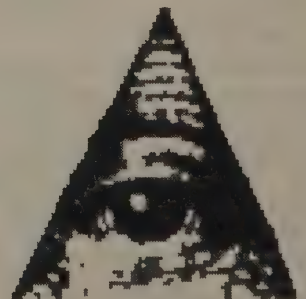
“Yes.”

You might not agree with this article. The author might not prove her contentions, support her suppositions, defend her positions, or explicate her conclusions to your satisfaction. But Elin Whitney-Smith has her own distinctive view of economic history, especially in those areas where information technology transforms social and economic relations. We need new ways of looking at the economic upheavals taking place today. The new answers might not emerge until enough people give up their old frameworks and start thinking about the new questions posed by the likes of Art Kleiner (“The Coevolution of Governance,” p. 94) and Whitney-Smith, whose pugnacious, iconoclastic views have also appeared in issues 72 and 73.

Elin Whitney-Smith can be reached via e-mail: elin@well.sf.ca.us

—Howard Rheingold

BY ELIN WHITNEY-SMITH



of Karl Marx

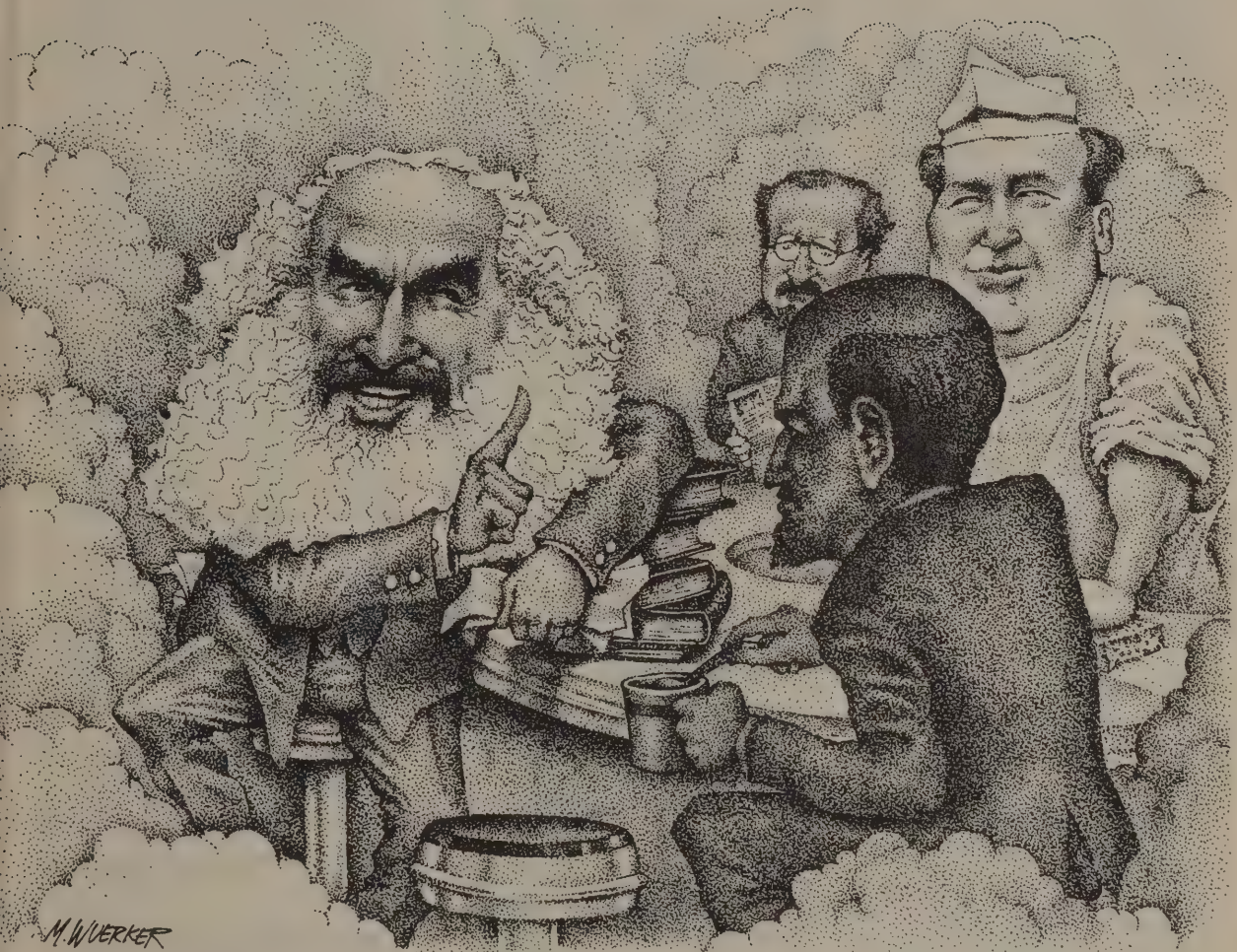


illustration by Matt Wuerker

"As the relations of production change, people learn the social relations that emerge from that production system, as if they were the only social relations possible. This was my point when I said that Darwin had neatly made his theory predict the English bourgeois of his day as the pinnacle of evolution."

"I know, I know. But, Karl, the USSR has been industrialized. The means of production have changed. But the people haven't

changed. They're still the same. Like I keep telling you, it's the character of the people."

"But the capitalistic phase! Vladimir, they never went through the capitalistic phase, they never negotiated for labor, labor was never alienated, they never developed relations of formal equality, they never sold their labor as a commodity! . . . Look, Vladimir, there is an implied negotiation inherent in the sale of labor as a commodity.

The negotiation develops the notion of the individual as distinct from the social group because there is an implied contract. A contract implies that the two parties are capable, and that implies a formal equality. This takes place under *capitalism!* Why can't you see it, man?

"In the USSR, people are either party members or they are workers. They don't negotiate. They are paid what the government decides. As a result, they



haven't developed relations of formal equality and they are identifying as Serbs, or Abyssinians, or Lithuanians, or Ukrainians, or Georgians, not as individuals or workers.

"People must join together to demand their portion of the profit produced by their labor. Petty distinctions between groups, like race, religion, or ethnicity, keep workers divided. So first they need to identify as equal individuals. This happens as a consequence of the sale of labor because of the formal equality of the relation. But formal equality is not economic equality. The demands of the owners — of capital — for profit plunder the system. They siphon off wealth made possible by the workers. This is the inherent contradiction of capitalism and this leads to crisis. Each crisis is resolved in a way that improves production. This will lead to the ultimate triumph of socialism, because workers will come to own the means of production."

"Wait just a minute, Karl. Which is the contradiction? The relation between labor and management or the relation between production and capital? You don't make that clear."

"Both. A capitalist entrepreneur invents some way of making some thing, machinery or process to make something or other. He hires laborers and they make the thing — their labor, organized together or magnified by the machinery, adds surplus value. The capitalist appropriates this surplus value and accumulates capital in the form of profit. His inclination is to

"Crises occur because the entrepreneur makes goods the impoverished laborer can't buy. There is overproduction because of the focus on profit. It is a competitive system, so each crisis is resolved in favor of the most efficient form of production."

take that profit and keep it. But for production to improve he should re-invest it into the means of production — the machinery and the people whose labor is generating the surplus worth. The contradiction is that the desire of the capitalist for profit and the needs of improving production are inherently opposed.

"Crises occur because the entrepreneur makes goods the impoverished laborer can't buy. There is overproduction because of the focus on profit. It is a competitive system, so each crisis is resolved in favor of the most efficient form of production."

"When? How?"

"Look at the United States, Vladimir. They started serious industrial expansion with the railways. In 1855, Daniel McCallum introduced a manage-

ment hierarchy and rationalized management methods to the Erie Railroad. For the first time the lines of communication were restricted to individual relations between two nodes in a hierarchy. By the 1880s, McCallum's methods were standard operating procedure on all railroads, and by the turn of the century the rationalized management structure was spreading to distribution and manufacturing. The new relations of production allowed businesses to expand — to vertically integrate. They could use planning in their allocation of resources instead of relying on market structures. Organization and communication: the new relations of production, Vladimir, just as I said."

"Yes, but what about the exploitation, oppression, what about the crisis inherent in the contradiction of capitalism?"

"Crisis, you say, yes, of course there was crisis."

He pulls scraps of newspaper out of his pockets.

"Look, Vladimir: crisis 1870, depression brought on by the overexpansion of railroads. Here, 1888, depression in Europe. Look, again: 1896, in the United States, and look at this one: 1929, stock-market crash. I'll give you crises. They go from crisis to crisis, and in each crisis, the ones that are less efficient don't recover. Where the capitalists skim off the profits, the business fails. Where there is only short-term thinking, they go under. Every time, they fail when they don't plow the money back into the means of production — the

machinery and the people."

"But, Karl, the people, the proletariat, the exploitation."

"Of course, the exploitation, yes. But, Vladimir, they did what I said. Here, I have it here."

He searches his pockets and shoves a sheaf of paper at Vladimir, pointing to a passage.

"In the first volume of *Kapital*, look, read!"

As Vladimir begins to look at the passage, Karl snatches it back and reads:

"The laborers must put their heads together, and as a class, compel the passing of a law, an all-powerful social barrier that shall prevent the very workers from selling, by voluntary contract with capital, themselves and their families into slavery and death. In place of the pompous catalogue of the "inalienable rights of man" comes the modest Magna Carta of a legally limited working day.'¹

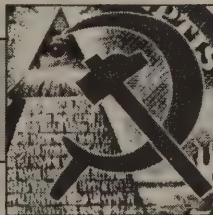
"See, that's just what has happened."

"But, Karl, the unions have ultimately served capital. Besides the union movement is dead."

"Yes. Success killed them. Workers have benefits, with or without unions. But even so they had their success, and that was because a union shop was a more efficient shop. The unions increased the efficiency of production. The old-style capitalists went out of business. This helped the whole reform movement. In the United States, during the early days of the twentieth century . . ."

"But that was because they were

"The important thing was, unions understood they could win public support by making a union product a better product, and capitalists learned it was important to have literate, docile workers. So the unions made sure their members were good workers and capitalists dropped their opposition to public schooling, social reform and a shorter work day."



afraid of you, Karl. There was a Red scare."

"Flattering but unimportant. The important thing was, unions understood they could win public support by making a union product a better product, and capitalists learned it was important to have literate, docile workers. So the unions made sure their members were good workers and capitalists dropped their opposition to public schooling, social reform and a shorter work day. The crisis got rid of the less profitable businesses and was resolved in favor of improved production. It happens

every time. In fact, Darwin's point: survival of the fit."

"And then, in Russia, came our glorious revolution. They were wonderful times, Karl, wonderful. We toppled an empire."

"Hmm . . . Yes, uhmm, Vladimir? Have you ever read . . . But wait, I have it here."

He searches through his papers, slaps his pockets and comes up with a passage. This time he lets Vladimir read:

"Without a sufficient level of productivity, communal production relations would only result in stagnation and decline in the mode of production — from which class distinctions would reemerge.'²

"All right, Karl, I realize sufficient production hasn't occurred in the Soviet Union. And I realize you predicted it. But what about your precious America, their union movement and their march toward your glorious vision? They aren't making progress now. They're conservative and the bureaucrats are the agents of capital. Executives get million-dollar bonuses even when their organizations lose money."

"I know. But in the inevitable crisis the inefficient, top-heavy organizations will not survive. The survivors will be different from the organizations of today. As different as the vertically integrated organization of 1940 was from the family-run business of 1840, or as the craft shop of the Middle Ages was from the early capitalist manufacturers of the seventeenth century."

"But, Karl, those are major



changes, not only in the production system, but in the entire culture. You're talking about something as big as the beginning of capitalism, about something bigger than the Renaissance."

"Yes, Vladimir, I know."

"But how?"

"Something I overlooked, something I missed: communication and information technology!"

"Computers? They hadn't been invented. How could you have overlooked them?"

"Computers hadn't been invented. But each shift was related to an information technology. Let me explain. When I first wrote, I noticed that the craft production system and the industrialized production system each had its own social structure. I explained this through changes in *technology*, and I was right. But when I looked at the evidence of the earliest transition between feudalism and capitalism I saw a sudden change in the *relations of production* that wasn't related to a change in the technology.

"For example, in the early 1600s Jack of Newbury was an ordinary journeyman. But he married his master's widow and built business by hiring weavers to work for him — not as traditional journeymen worked, as members of the family group, but as outworkers. He gave them the raw materials and bought their product. Eventually he had as many as 200 weavers working for him. It was a clearly capitalist relation. He was using the power of capital to increase production. This was clearly more radical than the ac-

"But, Karl, those are major changes, not only in the production system, but in the entire culture. You're talking about something as big as the beginning of capitalism, about something bigger than the Renaissance."

cumulation of merchant capital, or any other form of primitive accumulation. It came from the craftsmen themselves and resulted in an investment in production. The other forms of primitive accumulation resulted in buying titles and estates."³

"But, Karl, now you are saying that you are right about the technology. I don't understand."

"Let's go back to the example, and think slowly. Jack learned weaving in the same way as he learned to talk or walk. He grew up with it all around him."

"Yes."

"Because of the availability of printed books, Jack was able to learn how to read. He also learned double-entry book-keeping. This allowed him to account for production — to keep track of how much wool could be turned into how much cloth. In short, he had a model of the production system."

"Yes."

"This allowed him to alienate the production system. For the activities of production to stand out from the other activities of his daily life. What I didn't realize, Vladimir, was that for a negotiation for labor to take place so that labor could become alienated it was also necessary for the activities related to production to be alienated. Before a capitalist could buy labor he had to perceive production activities as distinct from other kinds of activities. This had to take place before there could be any negotiation for labor."

"Now you are talking about alienation of production. Alienation is the curse of capitalism. It is the source of oppression of the workers, of the isolation of people from the results of their labor."

"Yes, Vladimir, I know. The notion of alienation has taken on all kinds of meanings. But the original meaning, that a thing stands forth as separate, alien, is still a good meaning. Before a thing is alienated it is not distinct from the person as a social being. This is true if we are talking about production or about labor. And after all, in Jack of Newbury's time, it was much the same thing."

"Supposing I accept this. What has it to do with the shift from family business to rationalized business methods and vertical integration?"

"It's the same thing. Information technology. The telegraph and telephone."

"What? How can you say . . ."

"Look, before the use of double-entry bookkeeping, the activities of production were part of the activities of daily life. They were intrinsic to the person of the weaver, or miller, or carpenter, or whoever. Before the invention of the telegraph, communication — giving orders, collecting information — was intrinsic to the activities of ownership.

"Once the telegraph and telephone were used to communicate, it was possible for people to see communication as distinct from the other activities of ownership — communication was alienated from ownership. This allowed communication and information gathering to be delegated and fostered the invention of a model of communication — the organizational chart. This was a more efficient way of organizing, so in each economic crisis more rationalized businesses survived."

"Karl, you've become a business apologist, an agent of capitalism. You've forgotten the oppression, the misery. You've been corrupted by the bourgeoisie."

"I have always maintained that capitalism was an essentially revolutionary system. In the Communist Manifesto . . ."

He pulls papers from his hat; some of them land in the coffee. He holds up a dripping sheet and reads:

"The bourgeoisie cannot exist without constantly revolutionizing the instruments of production and thereby the relations of production, and with them the whole relations of society."⁴

"And it has happened, Vladimir, or it is happening. After

"Once the telegraph and telephone were used to communicate, it was possible for people to see communication as distinct from the other activities of ownership — communication was alienated from ownership. This allowed communication and information gathering to be delegated and fostered the invention of a model of communication — the organizational chart. This was a more efficient way of organizing, so in each economic crisis more rationalized businesses survived."



each major form of information technology, the relations of production are less oppressive to the worker.⁵ For example, before the press the feudal journeyman couldn't marry or live on his own until he was a master. If his master ordered him to

slop the hogs he did so. With the press and the beginning of capitalism, he could marry when he chose. Capitalists could oppress him economically but not socially or personally. The worker was formally less oppressed and more equal, although still massively exploited.

"Then, from the early days of capitalism, through the Industrial Revolution, up to the beginnings of rationalized organizations, the worker was subordinate to anyone in the managerial class. Just as, in the military, all privates are subordinate to all officers. But after the invention of electric communications and rationalized business structure, an employee was only subordinate to his immediate superior. The power of the owner was restricted; the worker had more authority. The conductor was within his rights to tell the president of the railroad to get on board, and to tell the engineer to leave the station. It established the notion of a worker's authority to act."

"So, Karl, what about the computer?"

"Computers are alienating the processes around decision making. Mainframe computers used numerical methods to calculate the economic consequences of decisions. Now people are making expert systems that alienate the decision process itself. And the major portion of managerial effort — data collection, analysis and reporting — is becoming trivial. The conductor's watch and the stationmaster's telegraph were tools which kept the railroad on schedule and avoided accidents, the computer is a tool



to make decisions and monitor the results.

"There will be economic crisis. Where decisions are made by workers who know the product, know the customer, and see the benefit of the result in their pockets, business will survive. Where decisions are made by the top of the hierarchy for the benefit of capital accumulation, business will fail. Computers turn the hierarchy upside-down. Decision making is the last function of ownership. Capitalists are dependent on workers to control the means of production, so workers will be as owners. I was right, Vladimir, I was right." ❧

1. Marx, Karl. 1970. *Das Kapital*, Moore, Samuel and Aveling, Edward (trans.). London, Vol. 1:302.
2. Marx, Karl and Engels, Fredrick. 1970. *Selected Works*; Moscow, Vol.2: 387.
3. Marx in Dobb, Maurice H. 1964. *Studies in the Development of Capitalism*; International Publishers, NY.
4. Marx, Karl and Engels, Fredrick. 1969. *Communist Manifesto*; in *Selected Works*; Moscow, Vol.1:111.
5. Whitney-Smith, Elin. 1991. "Information Technology and Wealth: Cybernetics, History and Culture." Unpublished Ph.D. dissertation, Old Dominion University, Norfolk, VA.

"There will be economic crisis. Where decisions are made by workers who know the product, know the customer, and see the benefit of the result in their pockets, business will survive. Where decisions are made by the top of the hierarchy for the benefit of capital accumulation, business will fail. Computers turn the hierarchy upside-down."

Notes

Adding the impact of information technology, in this article's imaginary conversation, reconciles three conflicting strains of interpretation of Marx's thought:

Marx as an advocate of technological determinism is discussed in William H. Shaw's book "Marx's Theory of History" (Stanford University Press, 1978).

Marx's interest in the development of consciousness and the social individual is presented in Carol C. Gould's paper "Marx's Social Ontology: Individuality and Community in Marx's Theory of Social Reality" (MIT Press, 1981).

And Marx as economic historian is presented by Claudio J. Katz in "From Feudalism to Capitalism:

Marxian Theories of Class Struggle and Social Change" (Greenwood Press, 1989).

The example of Jack of Newbury is from Maurice H. Dobb's *Studies in the Development of Capitalism* (International Publishers, NY, 1964).

Gould describes Marx's use of Hegel's dialectic, noting that social relations go from relations of inequality in precapitalist production systems, to relations of formal equality and economic inequality under capitalism, to relations of concrete equality under socialism.

The Soul of Economies

I'd been engaging friends in discussions on how to put extra money to the highest and best use. In part, I was looking for an investment philosophy I could personally incorporate and apply. This book came to me serendipitously and synchronistically — a flyer in the mail. With cogent argument, simple clarity and good humor, philosophy/religion professors Breton and Largent manage to translate and transform the Beatitudes and the seven sentences of the Lord's Prayer into a workable, up-to-date business and investment philosophy.
—Mark Brady

■ Win-win is the only practical and realistic economic strategy. In fact, it's what we do all the time. Day to day, we don't demand benefits from others without offering benefits in return. The concept of reciprocity goes to the bone. If others get more than we do, we feel cheated. If we get more than they do, we worry that they feel cheated, in which case we'd lose the chance to do business with them in the future. In the end, we strive for a balance. We want fairness — mutual benefit.

■ The tricks for siphoning are everywhere, though none of them counts as truly economic. Making money on other people's ignorance, for instance, isn't exchange. Profiting from contrived scarcity isn't exchange. Speculating on currencies isn't

The Green Consumer • The Green Consumer Letter

The Green Consumer is one of the most comprehensive question-answers for the consumer who would like to consume less destructively. Names are named, but the book is mostly a primer in basic principles by which to judge, so you can decide about items not specifically attended here. A good overview; it'll get you started. (More detailed examinations can be found in books devoted to one subject.)

The Green Consumer Letter keeps watch over things and duly reports the latest news in products, controversies and anything else the editors think you need to know. It's a lot sassier and (inevitably) more current than the book. —J. Baldwin

■ **How to Identify Recycled Products**
Finding recycled products at the market takes a bit of investigative work. Very few products boldly announce that their

products are made from recycled material, and there have been a couple of instances in which companies' claims have been misleading.

Recycled packaging can be identified in three ways:

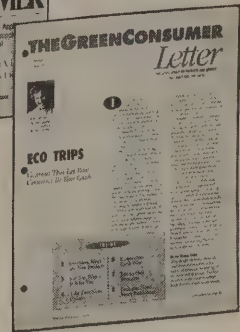
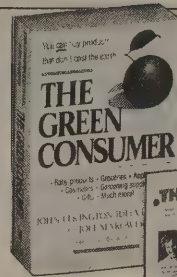
- The recycling symbol on the package.
- A statement such as "This package made from recycled materials."
- A gray interior in paperboard boxes, such as those used for cereals, detergents, and cake mixes. A white interior usually indicates that the package is made from virgin materials. (However, a box with a white interior may still be made from recycled material. To check, tear a corner of the package; if you see gray, it is made from recycled paper.)

■ **Who uses the beef from rain forests?**
You won't find much of it in the super-market as ground beef and steak; beef raised in rain forest regions is said to be stringy, tough, and cheap and often goes into mass-produced, processed foods, where it is combined with fattier domestic beef and cereal products. Although hamburger chains like McDonald's had been accused of causing tropical deforestation, it is now clear that McDonald's local raw materials sourcing policy has meant that the company takes vigorous steps to ensure that its business does not damage tropical rain forests.

—*The Green Consumer*

■ **Unclear on the Concept** This is not what we had in mind when we asked product manufacturers to reduce packaging. In an odd new marketing strategy, companies are shrinking their products in small but significant ways. For example, Maxwell House and Folgers coffee are now in 11.5-ounce cans, instead of the 12-ounce cans in which they were recently sold. Surf laundry detergent packages have gone from 42 ounces to 39 ounces. Several paper towel companies have quietly cut their sheets by 1-1/2 inches. And StarKist has slimmed down from 6-1/2 ounces to 6-1/8. That may seem like small fish, but it isn't for StarKist: That 3/8-ounce shrinkage will mean StarKist needs 1.73 million fewer pounds of tuna a year to fill the same number of cans.

■ **The Cutting Edge** As long as we're talking superlatives, the city of Seattle has come up with one of the best recycling ideas of all time. Seeking a use for all those leftover cans of paint that consumers, businesses, and government agencies would otherwise toss into landfills, city officials have blended them into a new hue: Seattle beige. A bargain at \$5 a gallon.



The Green Consumer

John Elkington, Julia Hailes and Joel Makower, 1990; 342 pp.

\$9.95 (\$11.95 postpaid) from Penguin USA/Cash Sales, 120 Woodbine Street, Bergenfield, NJ 07621; 800/253-6476 (or Whole Earth Access)

The Green Consumer Letter

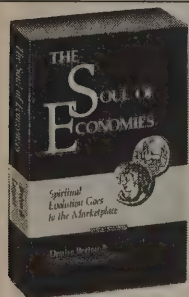
Joel Makower, Editor.

\$27/year (12 issues) from Tilden Press, 1526 Connecticut Avenue NW, Washington, DC 20036; 202/332-1700

■ **Reality Check** Two new reports suggest that consumers' near-blind acceptance of "green" products has given way to confusion and frustration over the bewildering array of claims and counterclaims found in the green marketplace.

A report from a task force of ten state attorneys general concluded that few environmental claims are backed by reliable evidence. The task force cited numerous examples of consumer confusion, particularly over issues of recyclability. For example, one consumer tried to recycle the plastic wrappers — as well as a trash bag of dirty diapers — of a brand of diapers whose package was deemed "recyclable."

■ **Adolph Coors Co.**, boycotted because of the reactionary politics of the Coors family, has launched a \$4 million ad blitz to push water-quality and conservation. Coors is already in hot water, however: the state of Colorado is investigating whether the brewer polluted its wells from 1982 to 1985. And Dow Chemical, once the target of vehement boycotts because of its manufacture of the flesh-burning weapon napalm for use in the Vietnam war, is about to introduce a reusable and recyclable plastic bag. —*The Green Consumer Letter*



The Soul of Economies

Denise Breton and Christopher Largent, 1991; 366 pp.

\$14.95 postpaid from Idea House Publishing Company, 2019 Delaware Avenue, Wilmington, DE 19806; 800/447-8862

exchange. Controlling markets isn't exchange. Driving up interest rates isn't exchange, nor is driving out the competition or lowering the quality of products and services while increasing the prices.

■ In the end, scarcity doesn't describe reality but our perception of reality. If we accept closed-system premises, we regard scarcity as an iron law. But the so-called law describes us, not what's out there. We create scarcity from the limits of our knowledge and the narrow uses of our creativity. No matter how much scarcity makes us feel trapped in limits, the walls binding us are our own.

THE COEVOLUTION OF GOVERNANCE

BY ART KLEINER

Is corporate environmentalism a shallow public relations ploy, or is something profound happening? Is the market the proper lever for altering the course of industrialism? One answer is that it might be too soon to have a solid answer. This article has traveled back and forth between Art Kleiner and WER for months as we both looked hard at what might be happening in corporations. In the end, Art ended up more certain that something is happening, and less certain that we can know what it means, just yet. Here's what Art had to say about his final draft:

"I wrote this after writing several articles for Garbage magazine on corporate environmentalism, and thinking that they all fit together a little more deeply than I at first suspected. Nonetheless, there is a definite $2 + 2 = 938$ quality to this little essay. It's deliberate; I wanted to see how far I could push the central notion, which I don't really get to until the conclusion (a rebellion, I suspect, against the training I've had as a freelancer to spell out my purpose up front). Some people think that forthrightness is a sign of credibility; others like their conclusions mixed with a little self-doubt. If there's truth here, it's definitely of the latter variety."

—Howard Rheingold

"THE CONSCIENCE OF A COMPANY HAS TO REST SOMEWHERE," said Wayne Silby.

"The managers feel it's the CEO; the CEO feels he's accountable to his board; and the board is trying to second-guess the shareholders." Silby, the co-origina- tor of the Calvert Social Investment Fund, was talking to some of the most powerful among those shareholders: the Financial Executives Institute, at their 1989 annual meeting. These executives are responsible for pension funds at the 100 largest corporations in the US. The core of their job is making sure that money will exist to pay out benefits to retired workers twenty or thirty years from now. They arguably hold at bay more anxiety about the future than any other group in the country. Thus they had a responsibility, Silby said, to use their considerable fiduciary clout; they should invest only in companies which demonstrated some environmental responsibility.

"Let's give our voice," he said, "about building a kind of world that the children of our participants will live in. The quality of that society will be the single most important factor in the quality of their retirement." But the pension fund managers sat stonily listening to him; they barely applauded. A few told him privately that it sounded like he was asking them to sacrifice their funds' profitability by asking them to invest in charity projects, like subsidized housing for the homeless.

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the last 30 years in America, individual investment has been shrinking to negligible importance, at least when it comes to influencing what corporations do.

I've talked to half a dozen people who have made such speeches, or pushed for investment in (for instance) small-scale soft energy companies, and there always seem to be a few members of the audience, they say, who want to follow the ideas, and indeed have the clout to make a difference. But their legal and customary mandates keep them effectively in thrall.

For the last 30 years in America, individual investment has been shrinking to negligible importance, at least when it comes to influencing what corporations do. The power has passed not to overseas investors, but to the simultaneously powerful and impotent new institution of pension funds. As Peter Drucker pointed out last spring in the *Harvard Business Review*, 40 percent of the common stock of America's

large and medium-sized businesses is held by pension funds these days. They also have lent 40 percent of American corporate debt. Three-fourths of those pension funds are so large that they cannot easily sell their holdings — there is literally no one around with the capital to buy their stock. Drucker first wrote about this phenomenon in the early 1970s, in a little-known book called *The Unseen Revolution*. He said that America was becoming a nation of "pension-fund socialism" in which, more than in any garden-variety communist country, the workers were coming to own the means of production.

It's as if the United States economy

How to Invest \$50 - \$5,000

Most people have only a vague idea of how to invest their money. They know about bank accounts, they have some idea about stocks (they go up and down, and up is better), but they know almost nothing about the types of investments available. Even worse, they don't know the risks and rewards of the investments that they already have.

Investing is scary even for the big players. Calculating the future risks is nearly impossible and causes much of the stress associated with money. But staying away from all investments is even scarier, particularly when inflation eats away at the value of your cash every year. Dunnan replaces the fear with facts about what you can do with your money.

This book explains all the common investments that you can make, rates their risk, and explains how to pick investments for yourself. It is arranged by amount that you want to invest (\$50, \$500, \$1000, \$2,500, and \$5000), but most people will want to read the whole book because many investments span

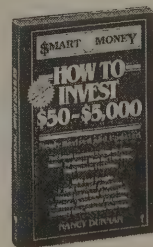
the ranges. This is the best guide for novices I've found. —Paul Hoffman

■ Sometimes small investors feel their options are limited. They're not. Over two dozen investment vehicles are described in detail in this book. We will show you how to take advantage of each one. In fact, you'll soon discover that all the financial world is wooing you and your money. Banks, brokerage firms, insurance companies, and financial planners are vying for your cash — be it \$50 or \$5,000. In fact, every major financial institution has a new gimmick to entice the novice as well as to hold on to the seasoned client.

■ The value of a [money market mutual] fund is that one large pool of money can be far more effectively invested than hundreds or thousands of small sums. Each investor, no matter how large or small his investment, then owns a proportional share of the fund, and receives a proportional return, without discrimination based on the number of shares owned.

■ Buying shares in a mutual fund is often a

good alternative to trying to pick from among the thousands of stocks available. For the small investor, the new investor, and the very busy investor, mutual funds offer diversity, professional management, liquidity, and relatively low cost. Compared with other similar investments, they also offer the possibility of price appreciation. Some funds have no minimum investment amount; for others it is as low as \$100.



How to Invest \$50 - \$5,000

Nancy Dunnan, 1991; 124 pp.

\$8 (\$11.50 postpaid) from HarperCollins Publishers/Direct Mail, P. O. Box 588, Dunmore, PA 18512; 800/331-3761 (or Whole Earth Access)

since 1970 has been the victim of a giant-scale practical joke. Who runs America? Corporations — with their disproportionate influence over politics, land use, and the way we live. They run roughshod over civil liberties, the environment, and the dream of full employment; they eclipse government as the major source of social charity and contributions to the arts; and they maintain unaccountability as a badge of pride, fiercely resisting the argument that they owe anything to the general community, except what they choose to give.

But who owns those corporations? Who, in essence, sets the purpose of the decisions they make? It's certainly not the managers; even top man-

agers often feel powerless to do anything substantial. No: we — or at least those of us who have built up pensions — own the corporations.

Ultimately, however, the joke's on us. The power of pensionholders is mostly hidden. And it is diffused through an elaborate set of rules. In the 1940s, Drucker relates, General Motors chairman Charles Wilson invented a pension-fund structure like a trust fund, requiring it to invest in the full range of possible stocks, instead of just parent-company GM. That way, if GM's stock price suddenly collapsed, its pensioners would be protected. People remembered the Great Depression vividly then; protection was of paramount value.

Wilson's design quickly caught on among corporations, and Congress

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AAIL Journal

There is a surprisingly small amount of information for intermediate-level investors. *Money* magazine, by far the largest of the financial publications, is jammed with advertisements and overly optimistic advice. If you want accurate, somewhat technical information, you have to look to much smaller magazines. *AAIL Journal* stands out as one of the few that takes no advertising and shuns trendiness.

Instead, you get about a dozen well-written articles an issue. No indoor fireworks here, although the Letters page has the best-thought-out responses to articles you will find in any magazine. Every issue has an interview with the manager of a major public fund; the Investor Workshop shows the many ways to track and value stocks; other articles are contributed by academics and financial planners.

The AAIL has about 60 local chapters, which meet monthly. Although most of the benefit you will get from your subscription is in the magazine itself, the local groups provide a good forum for meeting other midlevel investors and discussing recent trends.

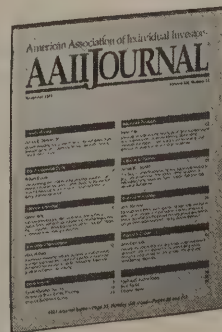
—Paul Hoffman

■ Who is a shareholder? If one chooses to make the case that directors and owners are not the true owners of the corporation and may at times make decisions that are for their benefit and not for the benefit of the shareholders, then the case against those who vote institutional shares may be much stronger. Voting shares by mutual funds may not be too much of a problem since mutual fund directors are elected by mutual fund shareholders and mutual fund investors will tend to invest with mutual funds that share their objectives.

Pension funds, however, are another matter. In many cases, those who decide how proxies held by the pension fund are voted are not elected by the beneficiaries and, in many cases — for instance, for governmental pension funds — are politically appointed. The thought of bureaucrats with personal agendas voting proxies is, to say the least, disturbing. Just the possibility of a pension fund controlled by political appointees bringing pressure on corporations to support a particular political philosophy is frightening.

The larger pension funds may soon have it within their power to virtually control U.S. corporations if they choose (which is not certain) and if corporate governance is

completely democratized without safeguards. Such power given to public pension funds would surely bring about political struggles for control of these funds, and cause much political strife as well as endanger the retirement funds of pension beneficiaries.



AAIL Journal

Maria Crawford Scott, Editor.

\$49/year (10 issues) from American Association of Individual Investors, 625 N. Michigan Avenue, Chicago, IL 60611

You

probably remember the "Greed is Good" speech in the movie *Wall Street*, where takeover pirate Gordon Gekko persuades stockholders that the management of their company is more corrupt than he is. In real life, his audience would have been pension fund managers.

eventually wrote it into law, more or less, as the 1974 Employee Retirement Income Security Act (ERISA). By the 1970s, pension fund investments had become gigantic child-tyrants in the market, fussed over by independent stock analysts, whose only job as "fiduciaries" was to get the best possible payback every day for their aging beneficiaries. Because of protective state laws governing stock trusts, these fiduciaries could not take a personal interest in any company, or even bet a long shot; if they lost money for their pensioners (over a limited "high-risk" amount), they could be liable for malpractice. This liability scared away banks, and suddenly small boutiques opened for managing pension funds, using computers to track stock performance on an almost moment-by-moment basis.

You probably remember the "Greed is Good" speech in the movie *Wall Street*, where takeover pirate Gordon Gekko persuades stockholders that the management of their company is more corrupt than he is. In real life, his audience would have been pension fund managers. Most of them would have felt honor-bound to go along with his offer of a higher stock price, no matter what they thought of his speech, of his management, or the future of the company. They'd care as little for the company as a bookie might care for the health of a horse after the race was over.

We have seen many examples of that policy's results in layoffs, leveraged buy-outs, and brutal use of resources. Two prominent examples: Several years before the Valdez incident, Exxon had begun a rigorous cost-cutting policy to make themselves more attractive to investors (and, incidentally, to boost the fortunes of top managers who held stock in the company, a reasonable thing to do by the standards of the game). And Pacific Lumber's drive

to cut down its old-growth redwoods in California was meant to scratch the quick-return itch of its debt-laden new corporate parent, Maxxam, whose takeover had been funded by pension funds investing in junk bonds. In the end, the system of pension-fund investment hurts the very future that pensions were designed to safeguard in the first place. End of joke.

You could read some significance into the fact that pension fund managers listened to Wayne Silby at all. Like many entrepreneurs with roots in the counterculture, Silby has a sardonic mien, in a low-key, somehow wholesome way. After law school, in the 1970s, he cofounded the Calvert Investment Group, which pioneered variable-rate securities — a way to invest by refinancing government-insured loans to small businesses. (Like junk bonds, these were a hitherto untapped source of raising capital — but not an abused one.)

In 1982, Silby set up a social investment fund within Calvert (which then managed \$1 billion overall). Previously, a few funds had refused to invest in companies which dealt with South Africa. Calvert was the first stock fund that tried to avoid bad corporate practices generally. Besides South Africa, they screened out firms that dealt in tobacco or alcohol, polluted the air or water, built weapons systems, discriminated against women or minorities, or produced nuclear power. Silby says it was not terribly difficult to decide which companies fit inside or outside the screens, but it's hard to imagine that being true, given the ambiguities of most of those decisions. Where, for instance, would you draw the line on what "polluting the air or water" meant?

Nonetheless, they made their selec-



MORROW/WL

tions and the fund took off; it turns out (says Silby) that a company with good "social" indicators, alongside solid financial indicators, usually yields better results than the stock-market average. Calvert never dramatically outperformed typical money-market funds, but it remained above average throughout the eighties, finding enough investor clients to inspire a half-dozen competitors. These funds' successes apparently have to do with the value of long-term investments; environmentally sound companies are more efficient. Companies with fair workplaces have more loyal people. And both face fewer lawsuits.

Social-investment funds and mainstream pension funds had one thing in common: an enemy. They both wanted to undercut the self-indulgence of corporate managers, who

traditionally controlled most of the corporate boards' decisions. During the mid-eighties, managing pension funds for state and city workers became an increasingly political job. Harrison Jay Goldin, a major New York City political figure, headed the city workers' pension fund (as Jerry Brown's former chief of staff, Gray Davis, did with the state workers' fund in California). Goldin led a coalition of institutional investors that forced GM chief executive Roger Smith to explain why he had ousted Ross Perot. But the pension funds had no political agenda per se; they just wanted more money returned to them from the companies. Nobody had ever succeeded in aligning them with the social activists until the Valdez Principles emerged, after Exxon's Prince William Sound oil spill.

At first glance, the Valdez Principles were a brilliant strategic ploy. They

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were conceived by a Boston-based financial analyst named Joan Bavaria, whose Franklin Investment Research Company does the research behind the screening in many social-investment-fund decisions. She and Denis Hayes — the Earth Day and Green Seal organizer, who coincidentally had been an anti-S&L lawyer in the eighties — began putting their Coalition for Environmentally Responsible Economies together in

1988. The group is composed in equal parts of pension-fund people, environmentalists, and others (mostly academics, lawyers, and government-agency-ers). They wanted to write a list of guidelines for environmentalist companies, along the lines of the Sullivan Principles for corporate investment in South Africa.

Of all attempts to reform institutional investing, only the Sullivan Principles had ever seemed to have much effect on pension plan managers. Leon Sullivan, a former

Money and the Meaning of Life

I think Socrates would have liked this one. But then, so would anyone who is compelled by the quest to "know thyself," since the author explores the money issue from the soul-searching perspective of the struggle for self. He starts by asking: just what do you really understand about money? What level of comprehension do you have of the permeating force of money in this culture and in yourself?

Like most people, I've always thought of money as a device invented by the secular world for purely secular reasons, and that money was in some way evil or dirty, inhibiting people from examining their true nature. Needleman painstakingly and eloquently explains that this is not so, that money holds the potential (if properly understood) to act as an instrument of self-knowledge and exploration. He addresses money issues as mind-boggling as they are timeless, such as: Are there things that money can and cannot buy? Can an individual forge a vocation at a livable wage without sacrificing self-respect? What is the morality of personal gain?

This book is packed with "aha" experiences for the reader. Needleman brilliantly weaves historical, religious, and philosophical ideas with amusing, often anguished accounts of wrestling with the dollar demons in order to stand in front of himself. The book also contains a stunning retelling of the legend of King Solomon.

—Cindy Cosgrove

■ Interpretations of history aside, the question of why money seems so real, why the bottom line seems to be the most real factor in our lives, comes to this: why have we lost the ability to experience the inner world in as vivid and intense a manner as the outer world? Why do we not experience the love of truth, for example, as vividly as we experience hunger or desire or the impulse to protect our children?

The surprising answer is that the way toward the real inner world is to experience with ever greater intensity of feeling the pulls and impulses that draw us toward the outer world! To experience God as intensely as we experience desire, for example, it is necessary to experience desire more consciously, not turn away from it toward some high, but bloodless and, finally, illusory ideal religious image!

■ In the culture we live in, our forms of communal life — family, religion, education, art, the pursuit of knowledge — do not lead us toward actual, vivid experience of a higher force. The conditions of modern life bring emotions of many kinds, thoughts of many kinds; but none of this fulfills us deeply because it does not point us to deep contact with the world within ourselves. Our feelings and thoughts about truth and value are pale when compared to the needs and sensations delivered to us by the outer world. We do not experience the inner world as vividly as the outer world.

All our vivid emotions are tied to desires and fears dealing with the outer world. Our feelings for God, for Being, for Truth — whatever we choose to call the ultimate unity of reality — pale when compared to

the stimulations that survival and functioning in the outer world evoke. *Money, being the principal means of organizing and ordering survival in the outer world, thus seems the most real thing in our lives.*

We must move toward truth or appearance, being or nonbeing. Nothing "under the sun" stands still. Everything moves — and it moves either upward or downward, inward or outward. If we do not love God, we will inevitably love money: there is, as it were, no other alternative!

● There are two movements of all energy and life — toward and away from unity, toward and away from the wholeness of the universal oneness. "Materialism" acknowledges only one of these movements — the movement outward toward multiplicity and diversity.



Money and the Meaning of Life

Jacob Needleman, 1991; 321 pp.

\$20 (\$22.50 postpaid) from Doubleday & Co./Fulfillment Dept., 2151 South Wolf Road, Des Plaines, IL 60018; 800/223-6834 (or Whole Earth Access)

Philadelphia-based minister and organizer of a job-training program, was appointed to the GM board in the early seventies, after a vicious shareholder proxy battle. He developed the principles as guidelines for businesses trying to be nondiscriminatory under apartheid. By the mid-eighties, however, Sullivan had denounced his own principles and called instead for corporate withdrawal from South Africa. Working with a coalition of fifty church groups, he engineered a new round of proxy battles that eventually pressured many companies (including GM) to divest. Nonetheless, his principles were still a good model to follow, and Bavaria and Hayes were well along in their thinking when the Valdez oil spill provided them with a name.

There are ten Valdez Principles; the first six include such standard tenets of corporate environmentalism as sustainable use of natural resources, waste reduction, "wise use" of energy, and the marketing of safe products. But the last four principles go further. Number seven suggests that after causing any damage to the environment, companies will "make every effort to fully restore the environment and to compensate those persons who are adversely affected." Number eight promises to disclose any potential environmental, health or safety hazards. Number nine promises to appoint someone representing environmental interests to the company's board of directors. And number ten promises an annual public audit of a company's progress.

About thirty companies have signed up to comply with the Valdez Principles so far, none from the Fortune 500; they include such icons of worthy capitalism as Smith and Hawken Tools, Walnut Acres, and

Stonyfield Yogurt. Most companies, even including Ben and Jerry's, are still holding back. It's one thing to agree to principles about faraway South Africa, but environmental matters affect the core of business for a manufacturing company. Even though many executives agree that the principles are worth following, there seems to be a reaction against them (except, perhaps, for the environmentalist board member). It's not *my* policy, they say. I had no say in their wording. And I can't let some environmental group ram its policies down my throat; that would be an admission of weakness. Who is supposed to have the final word about what corporations do, anyway?

When I first wrote about the Valdez Principles (in January 1991, for *Garbage*), I was tempted to dismiss that question. The answer seemed obvious: shareholders should have the final word. Bavaria and Hayes had admitted that they would ultimately try to reform ERISA and the other pension-fund laws to make stockholders more powerful, by making it easier for them to make long-term investments. Other laws would have to be reformed as well; there's a perennial proposal for a capital-gains tax that gets smaller as the turnover time for investments grows longer. Optimism was implicit in my article: as shareholders began to exercise long-term influence over their companies, the economy would improve, and we'd move closer to something resembling economic democracy. In effect, we'd "take back the corporations."

Now, I'm not so sure things will play out that way. The movement to reform corporations, in all its forms — including the Valdez Principles, environmental laws, and the monitoring of groups like the Council for Economic Priorities — has been met by a countermovement, still nascent,

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in which corporate people are seeking to reform society. In the past, most managers were not especially politically savvy outside their own purview. But in the past five years, corporations have stepped into the public arena to an unprecedented degree. Not through political contributions, charitable sponsorships, or even political advocacy; rather, companies are deliberately trying to influence — through nongovernmental means — aspects of life that used to be considered part of the political arena.

In 1990 McDonalds (after the Environmental Defense Fund approached them) set up a joint task force with that group, and engineered the switch from plastic clamshells to quilted paper-and-foil hamburger wraps. Both sides knew going in that their decision would affect every fast-food restaurant and plastic manufacturer in this country. (For instance, the plastics industry, to build its hoped-for infrastructure of plastics recycling, was depending on truckloads of clamshells from McDonalds to kindle interest in the project.) When examined under the microscope of life-cycle analysis, the McDonalds decision turns out to be probably correct (switching to plain brown paper instead of a bleached foil wrap would have been better). But the plastics people felt so betrayed they tried to turn the public opinion against the move. All this was played out with no government involvement whatsoever.

Similarly, the benign conversion of Pacific Gas & Electric from nuclear power to energy conservation took place after prodding from the Natural Resources Defense Council — with the state Public Utilities Commission in more or less a spectator's role. In last summer's Soviet coup and countercoup, our government abetted the Yeltsin forces not at all; but Pizza Hut, Coca-Cola, and other companies with Moscow outlets

came to their aid. In this country, there are increasing numbers of corporate-sponsored programs in civic action: schools, parks, recycling centers, altruistic-sounding regional planning efforts. They're sponsored less with money (the old way) and more with institutionally "volunteered" executive time.

The reasons stem from what corporate people are learning. The Total Quality movement, which began as a method for improving the quality of manufactured products, gives managers the feeling that they can accomplish anything through statistical improvement — except to break through the deepest stultification in their own chain of command. The same companies have, by now, often adopted a steady stream of "process-oriented" techniques for communicating between people. Unbeknownst to many executives who take part in them, these directed, facilitated meetings are descendants of counterculture activism: encounter groups, antipoverty and community organizing, farmworkers' unions, antiwar demonstrations, and Clamshell Alliance affinity groups. I've talked to at least a dozen people who left political activism to try to improve companies, to make them democratic, by putting power in the hands of self-managing teams within the firms.



THE PRACTICE OF CORPORATE empowerment is as paradoxical as the principle sounds. Self-directed

working groups are supposed to be autonomous; simultaneously they're supposed to keep in mind the benefit of the corporation as a whole. Bureaucratic infighting is bad enough when there's an au-

thority (ultimately, a CEO) to arbitrate disputes. But when people are autonomous, infighting brings the entire company to a halt. Thus, managers have spent a lot of time in the last decade figuring out ways to make people in companies feel responsible for the whole: hence the value of civil-disobedience tradition, where people had to learn to work together, yet be responsible for their own decisions. Where an affinity group's members once had to articulate for themselves the overall goal of a particular action, and their parts in it, today a working group in a corporation is asked to go into a meeting room and talk about their version of the "vision" for the whole company, and how they want to take part.

This process is often just a pretense of democracy. When it works, however, it produces dramatic results — including financial results, which is why it is becoming more prevalent. To be effective, the "vision" of each

working group must ultimately influence, if only in the aggregate, what the chief corporate officers think. This rarely happens, and many efforts dissolve into ennui. But when it works even partway, an interesting side effect has been noticed: when they think about the fate of the whole company, working groups end up thinking about the fate of people outside the company as well. They feel responsible for those people — who are, after all, potential customers, neighbors, or suppliers. A decision may be as small as the choice of a supplier, the placement of new equipment in a factory, or the introduction of a new product, but people feel that its ramifications may affect the whole world — which it may, of course. Inevitably, they turn their attention outward: "If we could get the same results we got here," they say, "in the schools or the slums . . ."

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True Wealth

Instead of striving for the almighty dollar, Paul Hwoschinsky exhorts us to strive for the good life, whatever that means to you. When you stop thinking about money as a goal, you start to see much more clearly what you really want.

Don't mistake this for a self-centered new-age book about attaining whatever you want. True Wealth helps you delineate your own higher and lower personal values. It has good discussions of setting concrete financial goals based on life goals, finding financial advisors who think like you do, and understanding where you fit into the economy. Money is looked on as a tool for the rest of your life, and not a terribly important one at that. —Paul Hoffman

• Exercise: What, Really, Is Money?

Ask yourself the following questions. Read each one, close your eyes and get a sense of the answer, then open your eyes and

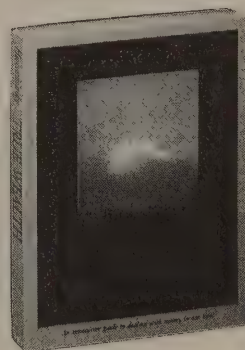
write the answer. Go to the next question. Take a minute or two with each one. As you will note, they are all associated with each other and will stir up a lot of feelings and thought.

- What qualities do you attribute to money?
- What purpose does it hold for you?
- What are you willing to do for money?
- What are you not willing to do for it?
- What are you willing to do with money?
- What are you not willing to do with it?

Finally, take a few minutes to look over your responses. Did one or two of them strike a special note, raise particular feelings, or create tensions?

• Be forewarned: if you are unclear or wishy-washy, an advisor is going to have to intuit or guess at your preferences and the degree of risk you are willing to take. If you leave your financial wealth in the hands of someone who cannot be sure what you really want or what you have in the way of

financial resources, you put yourself at additional risk.



True Wealth

Paul Hwoschinsky, 1990; 178 pp.

\$14.95 (\$17.95 postpaid) from Ten Speed Press, P. O. Box 7123, Berkeley, CA 94707; 800/841-2665 (or Whole Earth Access)

The point is not to paint corporations as either benign or malevolent actors in the political scene, but as actors in a new way: scouring the public commons for places to have influence. At the same time that citizens want to participate in controlling them, corporations want to participate in public life.

None of this would be taking place if government were still relevant — if it had kept its role as the moderator of civic debate, and executor of public consensus. Is it even necessary to document how the moral influence of government has eroded? The Kettering Foundation

did as much; a series of focus groups found a great hunger for responsive government. There was something inherently nostalgic about the Kettering report, as if it hearkened back to the days when American government sat at the head of the table of a contentious family — whose arguments stemmed in part from the diversity of their ethnic backgrounds. But well before Reagan's administration delivered the killing blow to Lincoln's notion of government of, by, and for all the people, it had become a cliché to note the paralysis of the state. This wasn't just because of vested interests and PACs, but because of the negative consequences of well-intentioned acts. Urban renewal killed cities. If it's broke, don't for

Within Our Means

*This dry, straightforward short book should scare the dickens out of every American more than any Steven King novel. Alfred Malabre writes about economics for the **Wall Street Journal**, which is not known as a bastion of financial caution. This book follows his well-received **Beyond Our Means**, which chronicled how deficit spending on the national, corporate, and personal levels had made the US ripe for takeover and almost guaranteed a permanent underclass.*

***Within Our Means** is a guide for national action to reverse our financial decline. The solutions Malabre offers are not easy, but he persuasively argues that they will hurt the rich more than the middle-class or the poor. He is a pessimist for the short term because Congress and the President have proven completely unwilling to face reality; he is somewhat optimistic for the long term because the public has started acting without them.*

This is a great overview of how the US economy affects individuals and how our national financial screwups of the last decade will ravage us and our children. It also gives good advice on how to turn

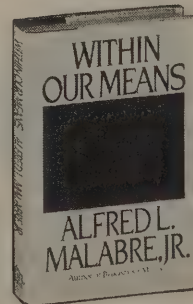
our economy around in a sound moral fashion, and how individuals can help the national healing. —Paul Hoffman

- Other government data show that hourly pay levels also rose briskly during the Reagan years, but only if inflation isn't considered. The hourly rate in November 1988 was one-third greater than in 1981. But when an adjustment is made for inflation, this gain evaporates. Like the weekly pay figure, inflation-adjusted hourly pay had been edging down since early in the previous decade.

- In the 1980s, U.S. savings, as a percentage of after-tax income, fell to the lowest levels since the 1930s. At 7.5 percent when Reagan assumed the presidency, the savings rate progressively diminished — to 6.8 percent in 1982 and on down to rates of less than 4 percent in 1987 and 1988. . . . For perspective, the savings rate in Japan in Reagan's last years exceeded 20 percent of income, more than five times the comparable U.S. rate, and the rate was rising.

- Hope springs eternal, but it is difficult in such circumstances to believe that very deep trouble can in fact be avoided. The economy has grown increasingly fragile

after nearly a decade of expansion prolonged by the buildup of debt, mainly in the Reagan years. The business cycle remains intact, with a new recession bearing down the road. The Cold War peace dividend has gone east of Suez. To try to cut the budget deficit at such a recessionary time is hazardous, since reduced government spending and higher taxes act to restrain economic activity. That's hardly the formula for keeping a recession in check.



Within Our Means

Alfred L. Malabre, 1991; 167 pp.

\$21 (\$23 postpaid) from Random House Inc./Order Dept., 400 Hahn Road, Westminster, MD 21157; 800/733-3000 (or Whole Earth Access)

god's sake fix it and make it worse. Significantly, the Kettering Report did not ask about participation at work. Nor, despite the repeated desire they noted people had to participate, was there any sense of where people might participate — except in an idealized yearning for some kind of "town meeting." Town meetings, regrettably, don't fit a world in which most of our political needs come from outside our immediate locale. I live in a small town in southwest Ohio; my work takes place in San Francisco, New York, London, and Washington. That's not typical, but it is increasingly common. Many people are making their own benign compromises between bioregional roots and social mobility. This means that if we are to participate politically, we must participate locally, nationally, and globally at once.

If democratic, representational governance declines, what is left? Some have glowingly talked about consumer power — about people enfranchised through what they buy. Last year, I heard Rosabeth Moss Kanter, author and editor of the *Harvard Business Review*, say in an interview that the upheaval of communism came about "because Eastern Europe wanted to go shopping." Joel Makower opened his *Green Consumer Supermarket Guide* with the statement that every time you make a purchase, you cast a vote for or against the environment.

When the economy is dire, consumer power feels terrific; if you can't afford to buy much, it's an aspiration. But those of us who have lived through times of economic glory know that it is a deeply unsatisfactory, passive power. At heart,

it is a corrupt power. It reinforces leaders who are marketers, who devote their attention to second-guessing the gratification of the rest of us — itself a dizzyingly self-indulgent way to spend one's time. Consumer power reinforces waste and triviality; if we want governance to be a vehicle for aspiration, for getting away from waste and triviality, consumer power doesn't offer much.

Nor is shareholder governance a likely alternative, despite projects like the Valdez Principles. Even if shareholders did vote on company policies, that would not be strictly democratic, because "one share, one vote" leaves controlling power in the hands of pension fund managers and other institutional investors, who control most of the stock. It leaves those of us without pensions particularly disenfranchised. (Indeed, just as the power of pension-fund socialism is being discovered, an increasing number of people are being laid off and thus losing their pensions.)

Some argue that we need no vehicle for governance at all. Essentially, that's the political system now. Rarely does anyone ask for a consensus of how people want to live. Even if someone tried to gather such a vision and make it come true, we take it for granted that special interests would stop him. Instead, people in isolated venues (like corporate divisions and soup kitchens) talk about their "dreams" and "visions" while the American dream becomes the American absence-of-dream.

Scenario writers might call that a "business-as-usual" scenario. And they would then ask, *What would have to happen in order for this future to be averted?* That's the value of shareholder activism (like the Valdez Principles) and its mirror image, corporate empowerment. They suggest that an alternative scenario is possible.

The

point is not to paint corporations as either benign or malevolent actors in the political scene, but as actors in a new way: scouring the public commons for places to have influence. At the same time that citizens want to participate in controlling them, corporations want to participate in public life.

Efforts

like the Valdez Principles would serve as high-level feedback loops; if a corporation moved out of line, it would hear about it through its shareholders, which in turn would represent pensioners.

It would mean evolving into an intermingled, informal, nonrepresentational kind of governance in which nothing substantial happened through top-down power from elected representatives or company officials. Instead, people would participate in public life in a variety of venues, creating public projects — both local and in far-flung communities of interest. As individuals in these groups, we would grind against each others' contradictory values, gradually creating consensual, valuable results. If communication technology abetted this (as it presumably would), it would be by making "governance" more like a technological governor — that is, a device for quicker feedback. We participants would become multifaceted checks and balances on each other. Efforts like the Valdez Principles would serve as high-level feedback loops; if a corporation moved out of line, it would hear about it through its shareholders, which in turn would represent pensioners.

Presumably, this new type of politics will exist alongside governments, not replacing them but gaining in strength as they sink progressively into paralysis. It sounds unthinkable, but scenario writers like to consider the unthinkable, and especially to point out what they call "indicators" — early warning signposts which, if they come true, help to show that an unthinkable future is actually on its way. Here are some events that (if they take place) would suggest that a future of "participative governance" is actually going to take place:

- ERISA and other pension laws are reformed to welcome longer-term investing.
- Institutional stock ownership loosens up. People are allowed more choice in which pension they belong

to. Employee stock-ownership plans increase.

- Corporations and nonprofits co-sponsor town-meeting-style community efforts (probably linked to the Quality Movement). These town meetings are non-ideological — that is, they don't exclude large groups of citizens for their cultural views. And they achieve tangible results: an environmental negotiation that satisfies all sides, for instance.

- Someone visibly and effectively applies consensus process to some unsolvable public conundrum, like the abortion/population debate or pornography.

- Groups like Kettering don't care about governance any more.

- Electronic democracy grows and flourishes.

- Large corporations actually begin the fundamental transformation which many consultants and executives hope for them.

- Some sort of dramatic increase takes place in the usefulness, production values, and popularity of local and special-interest broadcasting. And a change occurs in the way advertising dominates popular media.

There is the question of whether we'd want to live in a world of participative governance, which would be more time-consuming and probably nerve-wracking than the non-governance we know today.

But I take it on faith that participative governance would be better — maybe even necessary for moving out of political stagnation. One inspiration for this feeling, in me, is what community-organizing pioneer Saul Alinsky wrote in 1971 in

Rules for Radicals. He had been planning to start a project for the reform of corporations — “A spiritual slum,” he wrote, “their arrogance is the major threat to our future as a free society.” He wrote that the tactics would emerge from the battle, but he suggested starting with stockholder proxies — doing, in essence, what the Valdez Principles are trying to do, and presumably moving on to what the manager-empowerers are trying to do, and to what many of us may be trying out during the next few years.

“A major revolution to be won in the immediate future,” he wrote, “is the dissipation of man’s illusion that his own welfare can be separate from that of all others. As long as man is shackled to this myth, so long will the human spirit languish. Concern for our private, material

well-being with disregard for the well-being of others is immoral according to the precepts of our Judaeo-Christian civilization, but worse, it is stupidity worthy of the lower animals. . . . It was wrong to assume that man would pursue morality on a level higher than his day-to-day living demanded; it was a disservice to the future to separate morality from man’s daily desires and elevate it to a plane of altruism and self-sacrifice. . . . I believe that man is about to learn that the most practical life is the moral life and that the moral life is the only road to survival.” Alinsky closed by writing, in italics: “*This is the low road to morality. There is no other.*” ♦

The Unseen Revolution. Peter Drucker. Harper & Row, 1976.

Citizens and Politics: A View From Main Street America. Kettering Foundation, Bethesda, MD, 1991.

The Empowered Manager. Peter Block. Jossey-Bass, San Francisco, 1987.

Rules for Radicals, Saul Alinsky. Random House, New York, 1971.

The Valdez Principles: Information available from Coalition for Environmentally Responsible Economics, 711 Atlantic Avenue, Boston, MA 02111; 617/451-0927.

Business Ethics

This lively journal covers utopian workplaces, management ethics, corporate social responsibility, ethical investing, business environmentalism, anti-war advertising, and other life on the edge between big business and social reform. (“Big” seems to mean anything from Ben & Jerry’s on up.) It’s a tad uncritical, but impressively long-lived — going on its sixth year now, with letters that show it is actively read not just by outside Pollyannas, but by corporate insiders as well. The best feature is called “What would you do?” It presents knotty on-the-job problems — like what kind of job reference to give someone you never quite got along with. (Hint: not the full truth.) —Art Kleiner

■ How then should we work for change? This magazine really is my model of the answer: First, celebrate rather than criticize. We should applaud the fact business has taken one step forward, rather than bemoan the fact it hasn’t taken six steps.

Second, hold a vision of what is possible. Outrage may launch our efforts, but it cannot guide them. Only a vision of the possible can guide us.

Third, welcome everyone, and don’t check IDs at the door. It’s not productive to fret about some bad-guy corporation using ethics or environmentalism “as a cover.” If a company considers it important to be seen as progressive, that’s wonderful. The company’s own pronouncements will serve as pressure to make sure actions follow. And their advertisements will up the ante for other corporations, making responsibility the norm in business.

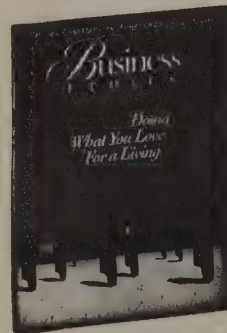
■ Junker Heaven

Unocal Corporation, a Los Angeles-based oil company, has gone into recycling in a big way. In an effort to combat the problem of air pollution in the Los Angeles basin, the company has been buying old cars and turning them into scrap.

As part of the South Coast Recycled Auto Project (SCRAP), the company and other local businesses spent more than \$6 million last year to buy 8,376 cars and trucks manufactured before 1971. The owners of these rolling pollution machines were encouraged to make an appointment to drive to a junkyard south of downtown Los Angeles and turn in their vehicles for a \$700 check and a bus pass. The only stipulations:

the cars had to be running, and the drivers had to prove ownership.

“This program was not difficult to implement or administer,” says Michael Riehle, manager of policy analysis at Unocal. “In fact, one of the most difficult things was finding a place to park all the cars.”



Business Ethics

Marjorie Kelly, Editor.

Sample issue \$5 from Business Ethics, 1107 Hazeltine Boulevard/Suite 530, Chaska, MN 55318; 612/448-8864

The Real World

In two-dimensional space, the arrangement of things determines relationships between them. In the real world, the arrangement of continents and oceans shapes winds and currents, which influence climates, soils, and vegetation. Patterns of climate, soil and population allow agriculture, which predicts settlements — and the accumulation of wealth. Inequalities of resources and wealth lead to trade and the potential for conflict. Compatibilities between societies lead to nations and states and the likelihood of greater commerce and bigger conflicts. Throughout this process it is the patterns of distance and proximity, isolation and intercourse, that direct



The Romans brought the vine with them from Italy to Switzerland's Rhone Valley. Some say that it was wine more than legionaries that opened up the roads north. Rome used wine in much the same way as the English and French used spirits in North America, to demoralize indigenous peoples.

the flow of people, resources and wealth.

*The science that studies these patterns in an attempt to explain the state of the world is geography. The consequences of geographical factors can be enormous: from the violent dissolution of arbitrary states (like Yugoslavia), to inevitable flooding in Bangladesh, to what happens when your home town is bypassed by the new freeway. The book that explains geography much better than any other is **The Real World**. —Don Ryan*

- Today, 30 years after its introduction into Lake Victoria, the voracious Nile perch comprises 80 percent of all fish caught in the lake. Since it is prized in East African cities like Nairobi, and now Europe, new companies have been created to catch, preserve, and export this fish, which grows up to 550 lb (250 kg). But there can be no substitute for the millions of fish the Nile perch has displaced. Of the lake's 300 unique species of tiny colorful cichlids, 200 are believed to be extinct, and the vital protein they provided for local consumption is fast disappearing.

The Nile perch can never be removed, and it may be making a desert of the lands around the lake. The indigenous species could be sun-dried, but the perch must be smoked on wood fires.

Rise and Fall of Boswash Cities

Boston, New York, Philadelphia, and Baltimore all developed as "gateway" cities. Transport has been an important factor in their growth and their fluctuating fortunes. In the 19th century, Baltimore provided the fastest rail link with Chicago; but its harbor was much less suitable for ocean liners than

When trying to understand economic behavior, economists sometimes hypothesize a person who always makes rational and efficient decisions. The geographical equivalent is the "isotropic plain" — a flat, featureless landscape where the population is evenly spread. On such a plain, the arrangement of markets and the areas they serve would be perfectly regular. This was the theory put forward in the 1930s by the German geographer Walter Christaller. He proposed orders of centers, ranging from corner shops to major cities, and drew maps of the ideal market areas, in the form of regular, adjoining hexagons.

Of course, such a perfect regularity does not exist in practice. Actual patterns may be distorted by valleys, mountain ranges, industrial belts. Neither is population evenly spread, and areas of high population attract more markets. But the retail industry has found Christaller's theory of great value in helping it to predict sales and choose locations for its outlets.

A settlement hierarchy
The larger the settlement, the more goods and services it

provides, and the farther it is from another settlement of comparable size.

Capital city: often the largest city with the widest range of goods.

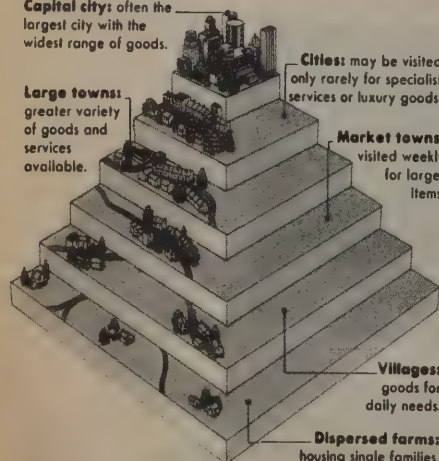
Large towns: greater variety of goods and services available.

Cities: may be visited only rarely for specialist services or luxury goods.

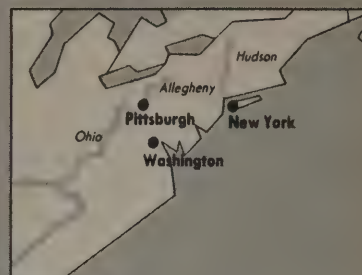
Market towns: visited weekly for larger items.

Villages: goods for daily needs.

Dispersed farms: housing single families.



THE PITTSBURGH STORY



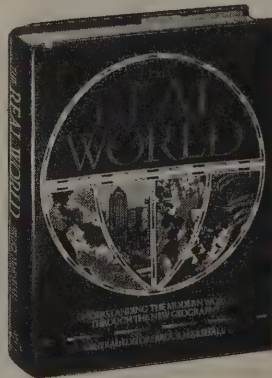
The changing fortunes of Pittsburgh, Pennsylvania, are due largely to its geography. On the site of a former Indian village and fur-trading post, it had a defensible position in a river fork that made it an important military installation. The French built the first fort here in

either New York's or Philadelphia's.

Boston, the nearest to Europe, had a brief period of advantage in the early days of air travel, when flying was hugely expensive and airplane fuel capacities small. As these problems diminished, New York's airports came to dominate transatlantic passenger traffic. Only recently, with inconvenient congestion at New York, have Boston, Philadelphia, and Baltimore acquired more important international flights.

On the sea, as technology moves toward ever-larger ships, characteristics of the various city sites reassert themselves. Only New York's harbor can accommodate the most modern ships with ease.

- For 99 percent of our history, humans have lived in tiny nomadic bands, exploiting only wild food resources. It was in such hunter-gatherer groups that *Homo sapiens sapiens*



The Real World

Bruce Marshall, Editor. 1991; 263 pp.

\$35 (\$37.50 postpaid) from Houghton Mifflin Company/Mail Order Dept., Wayside Road, Burlington, MA 01803; 800/225-3362 (or Whole Earth Access)

1753, but lost it to the British within five years.

When the frontier moved west, Pittsburgh would surely have declined but for the discovery of rich coal and iron seams. With great demand for railroad track and locomotives, Pittsburgh turned itself over to steel. By 1900, the city was the fifth largest in the U.S., producing half the nation's iron and steel. Some of the largest corporations of the U.S. were born here, including US Steel, Westinghouse, and the canned food giant H.J. Heinz.

After floods in 1936 and economic decline in the 1970s, Pittsburgh is buoyant again. Recently voted America's favorite city by corporations seeking new head offices, Pittsburgh has lived down its metal-bashing, smoke-choked image. It is capitalizing on all its geographical advantages, especially its fine river fronts, congenial rural surroundings, and a central location in the northeast manufacturing belt.

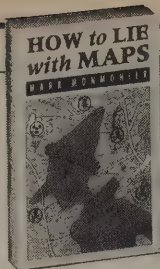
colonized much of the globe and adapted to its environments and climates. Migration must generally have been slow, taking perhaps several thousand years to cover a thousand miles.

How to Lie With Maps

For over thirty years, Darrell Huff's *How to Lie With Statistics* has been the reference for the three basic kinds of lies: lies, damn lies, and statistics. After Huff, few can look at printed numbers or graphs and accept what is presented at face value.

Map users willingly tolerate white lies on maps. Cartography presents a paradox: to present a useful and truthful picture, an accurate map must tell white lies. Personal computers and desktop publishing have made it easier to lie to ourselves and be unaware of our lies.

Real-estate developers now use high-end (\$10,000 — \$20,000) geographical information system software to identify property — to avoid hazardous waste sites or to find properties more than twenty or thirty years old so they can acquire the property, tear down existing buildings, construct new higher-density buildings, and quickly turn the property over for a large profit. DeLorme (the



How to Lie With Maps

Mark Monmonier, 1991; 176 pp.

\$12.95 (\$14.95 postpaid) from University of Chicago Press, 11030 S. Langley Avenue, Chicago, IL 60628; 800/621-2736 (or Whole Earth Access)

high-quality atlas and gazetteer publishing company), many architects, and newspapers frequently state map scale as the absurd "one inch equals one mile." The use of "equals" instead of "represents" robs the user of a subtle reminder that a map is merely a symbolic model and also falsely suggests that the mapped image is reality.

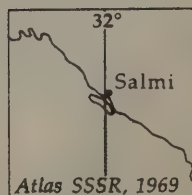
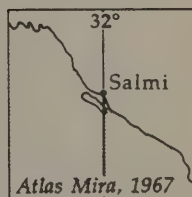
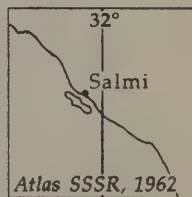
What Huff did for statistics, Monmonier has done for cartography.

—Scott M. Kruse

Until the Swiss canalized it, the upper Rhone flowed erratically across a marshy flood plain. But control of the river has transformed the valley floor into a neat farming mosaic. In the absence of other energy resources, the Swiss turned to the river for hydroelectric power.

But now the Rhone valley is beginning to pay the price of its intensive exploitation and the good life its citizens have earned. Traffic exhaust fumes kill the trees that hold the winter snow in place. Avalanches and landslides threaten the old villages. This most humanized of landscapes could die of self-inflicted wounds.

In the late 1930s, after the NKVD, or security police, assumed control of mapmaking, the Soviet cartographic bureaucracy began to deliberately distort the position and form of villages, coastlines, rivers, highways, railroads, buildings, boundaries, and other features shown on maps and atlases sold for public use. This policy reflects a police-state mentality not unlike the misguided disinformation campaigns and cover-ups that at times have embarrassed the United States, Britain, and other Western governments. Ironically, the Soviets accelerated their map distortions in the mid-1960s, when the United States had begun to deploy sophisticated spy satellites.



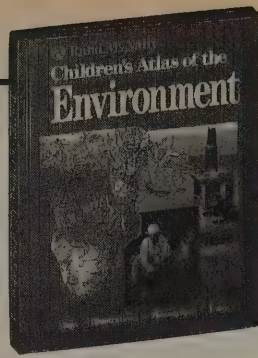
Representation of Salmi and vicinity, on Lake Ladoga near 32° E, on Soviet maps published between 1962 and 1969.

Children's Atlas of the Environment

Written for eight- to twelve-year-olds, this is an example of the increasing sophistication of environmental texts aimed at kids. One distinction of this book is that — after chapters describing Earth as a balanced system, then introducing upsets into the balance — over half of the book is devoted to solutions.

The other distinction is that it treats the subject geographically: that is, it recognizes differences between some large areas and similarities among others, and by so doing discusses issues regionally — with close ties to land, climate, culture, and economy.

After a discussion about water pollution in Lake Baikal and other parts of northern Asia, the regularly appearing "How Can We Help?" box answers itself: "By encouraging careful development of this fragile land so that the mistakes made elsewhere in the world will not be repeated." In other words: learning about how people have fared in other parts of the world can make you act smarter in your own. Now that's just good applied geography, and, if followed up in the classroom or by a parent, can be heady stuff for an eight-year-old. —Don Ryan

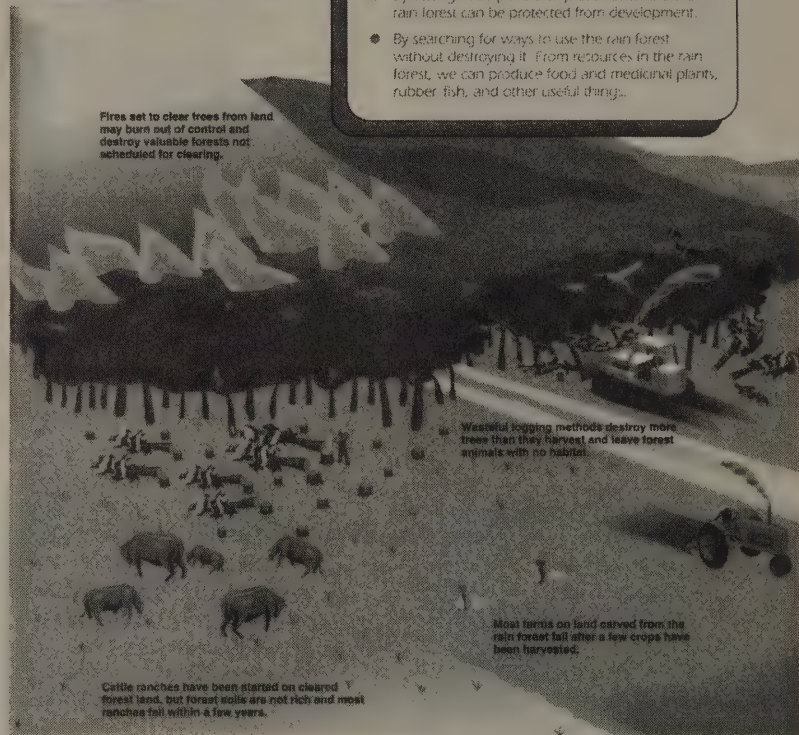


Children's Atlas of the Environment
1991; 80 pp.

\$14.95 postpaid from Rand McNally & Company/
Attn.: Telemarketing, 8255 N. Central Park Avenue,
Skokie, IL 60076; 708/673-9100
(or Whole Earth Access)

How Can We Help?

- By setting aside parks and preserves where the rain forest can be protected from development.
- By searching for ways to use the rain forest without destroying it. From resources in the rain forest, we can produce food and medicinal plants, rubber, fish, and other useful things.



Picture Atlas of the World

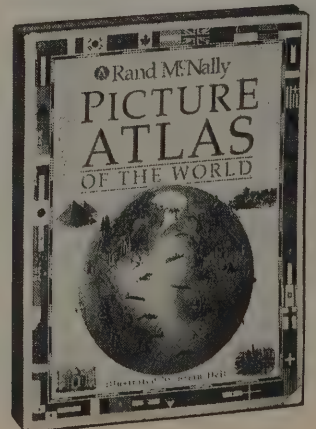
I have an old school atlas someone saved from the trash for its quaint illustrations. It dates from 1890-something. One of its plates shows the World's Tallest Mountains all in one giant heap, with Vesuvius and Mont Blanc as foothills to McKinley, Aconcagua, and Everest. Arranged just above this are the World's Longest Rivers, dangling like snakes hung out on a clothesline.

Displays of such superlatives can still catch kids' attention as they did a hundred years ago. The most recent incarnation of that durable Rivers and Mountains plate is only a minor attention-getter in this superbly illustrated atlas, the likes of which every child above third or fourth grade should be exposed to. Even my two-year-old is fascinated by the tiny people, animals and industries on the regional maps; I, too, marvel at the care exercised in the thousands of detailed drawings. I've done a little of this sort of work myself and can appreciate this as first-rate.

Yes, it's shallow, but it's a grabber, and wading pools can be the first splash toward the Olympics. —Don Ryan

Picture Atlas of the World
Illustrated by Brian Delf. 1991; 80 pp.

\$19.95 postpaid from Rand McNally & Company/Attn.: Telemarketing, 8255 N. Central Park Avenue, Skokie, IL 60076; 708/673-9100 (or Whole Earth Access)

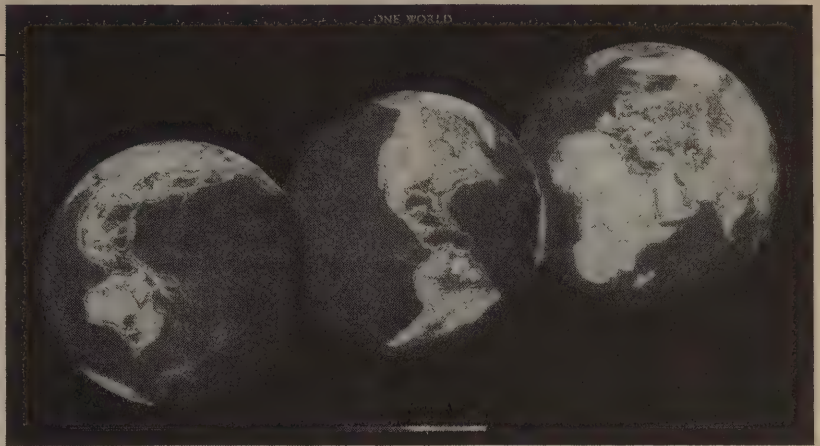


One World • The Earth — From Space

This year marks the 500th anniversary of the completion of the first modern world globe, crafted by Martin Behaim. Those of us born in the last thirty years may not realize it, but for centuries the world map — specifically the globe — has been the symbol of universal understanding and knowledge. People of wealth, learning, and commerce had globes in their studies and on their letterheads to serve their interests and assert their ambitions. Then, in 1967, the now-ubiquitous photo of the "whole" Earth was published.

Now I think the 25-year infatuation with that whole-Earth photograph is ending. The image became an icon. Its pretty face launched a thousand books (including this one), projects, and good intentions. But it has no more to tell us than what we have already seen. It's a passing snapshot trophy of astronomical adventure.

Two hybrid children of globe and photo are shown here. They are part of a vigorous new breed — synthesizing qualities of the drawn map and the remotely sensed planet itself. Because they are made to serve us, they contain and offer what the whole-Earth icon cannot: human intelligence, consequence and potential. —Don Ryan



The most velvety blue ocean you've ever seen in print laps against the shores of altitude-tinted continents. In the vacuum of space you can't hear the waves. Physical features, including cities, are unobtrusively named but political boundaries are not shown. Fine with me. You will want to rotate it to see the edges better, but you can't.

One World

35" x 63". Plain paper **\$35** (\$40 postpaid); laminated **\$60** (\$65 postpaid) from Raven Maps & Images, 34 N. Central, Medford, OR 97501; 800/237-0798

Over 20,000 natural-color NOAA satellite images, chosen for virtually cloudless skies, digitally merged into a seamless mosaic of perpetual summer. Vegetation types show distinctly so it's possible, for example, to compare Amazonian rain forest with that of the Congo basin. Most remarkable thing I learned: the vastness of the Sahara. You may count on seeing more uses of this imagery from collaborators

Tom Van Sant and Lloyd Van Warren.

The Earth — From Space

Tom Van Sant and the Geosphere Project
24" x 36". Plain paper **\$15** (\$19.50 postpaid); laminated **\$20** (\$24.50 postpaid) from Spaceshots, Inc., 526 South Francisca Avenue, Redondo Beach, CA 90277; 800/272-2779



The Earth - From Space

A Satellite View of The World

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Spaceshots, Inc. 526 South Francisca Avenue Redondo Beach, CA 90277



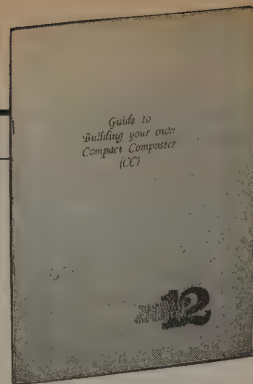
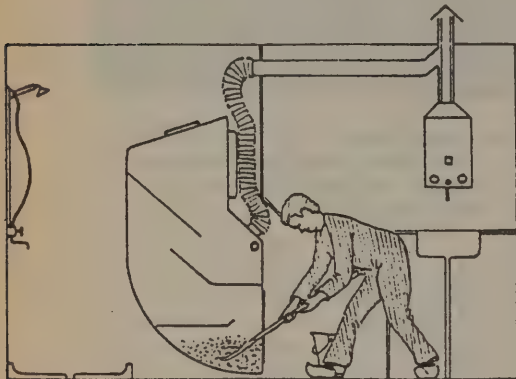
The Compact Composter (CC)

De Twaalf Ambachten (The Twelve Trades), a Dutch outfit similar to our own organizations attending applied ecology, appears to have solved the composting toilet problem with this very clever design. It works. Gone (I was about to say eliminated) is the gag-a-buzzard ritual of emptying and stirring a mass that may or may not be quite as sweet and tidy as the brochure promised (most eco-chic magazines ignore such

matters). You only have to attend this device every three years or so, and the compost you deal with by then is all worked out. Also gone is the necessity of a bulky and expensive two-story arrangement — the CC is compact and all on one level. Indeed, it was developed for use in the many live-aboard boats that ply the watery Dutch landscape (they're not allowed to dump sewage overboard any more). A properly done CC could even work in a trailer or motor home!

Sietz Leeftang, founder of the enterprise, has kindly arranged to have the construction instructions translated into excellent English. This is the one to build. If you can read Dutch, you might also consider subscribing to their useful *De Twaalf Ambachten*, one of just a few such magazines anywhere. —J. Baldwin

- The use of the CC in a composting toilet which is working



Guide to Building Your Own Compact Composter (CC)

Sietz Leeftang and Dion van Oirschot 1991; 28 pp.

\$32 (by check); \$24 (in cash) from Stichting De Twaalf Ambachten, De Bleken 2, 5282 HB Boxtel, The Netherlands

well, a mass should result which looks quite moist and reasonably solid. The end product is odourless, looking similar to moist forest humus, and as mentioned before, only needs to be removed every 2 to 3 years. This is due to the fact that after evaporation, a grown person produces no more than 15 litres of compost per year. A family, therefore, produces no more than a full wheelbarrow every 3 years.

Solar Box Journal

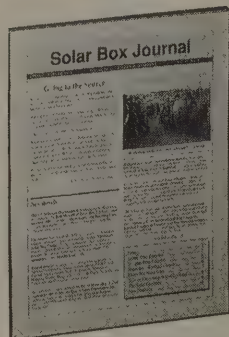
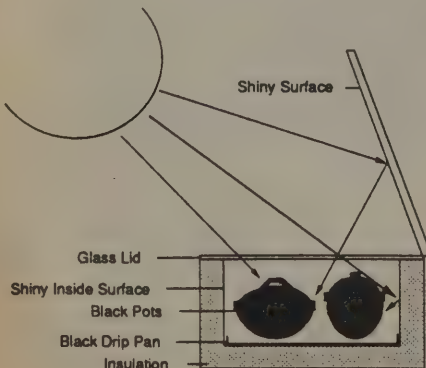
Solar box cookers ("solar ovens") are simple and cheap, and they work. Where fuel is scarce, they can reduce time spent in wood gathering, not to mention reducing deforestation, erosion, smog, and other pressure on the environment. No smoke means fewer health problems. For us speedy Westerners, the relative inconvenience makes the cookers less attractive, but they still make good sense. This journal reports the slow but sure progress of the concept as it is adapted around the world.

Note that there are many cookers commercially available in the US. I get advertisements for yet another new brand about once a month. In my opinion, they are all overpriced. You can easily make one yourself for \$5 or less. —J. Baldwin

- Helena Norberg-Hodge [founder of the Ladakh Project in India] reported that, though the cookers are recognized as saving time, money and energy over collecting dung for fuel, they have not caught on as quickly as one would have liked. One of the main reasons for this, she says, is that cookers aren't associated with what is modern and fashionable. This is a motivating factor determining why things are adopted by Ladakhis, and other traditional cultures. "Westerners need to understand this fascination with and apparent need for 'the modern,'" she said.

Helena emphasized that it is imperative that more cookers be used in the West, and that to the extent they are already in use, they must be made more visible. If Ladakhis and other people from traditional cultures saw more Westerners using solar cookers, they would be more likely to adopt the technology.

- The new revised edition of *Heaven's Flame*, a Guide to Solar Cookers has just been published by Home Power (\$10 postpaid from P. O. Box 275, Ashland, OR 97520).



Solar Box Journal

Tom Sponheim, Editor.

\$20/year (4 issues) from Solar Box Cookers Northwest, 7036 18th Avenue NE, Seattle, WA 98115. Sample copy plus solar box cooker plans \$5.

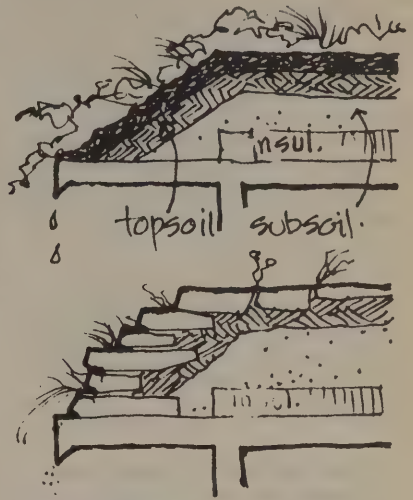
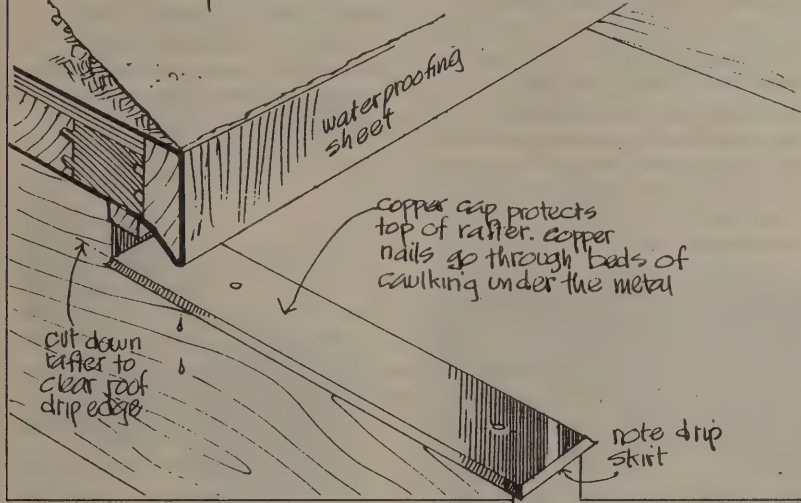
How To Build An Underground House

We were among the first to publish Malcolm Wells' pioneering earth-sheltered house designs, so it'd be hard to avoid extolling this book revealing the necessary construction techniques. Write by hand, and illustrated with his inimitable drawings. —J. Baldwin

Here in the northeast, where rainfall is plentiful, a stand of grass and wildflowers will appear in no time. In the drier parts of the west it is sometimes necessary to use a different mulch - stone - to keep

the entire roof garden from blowing into the next county.

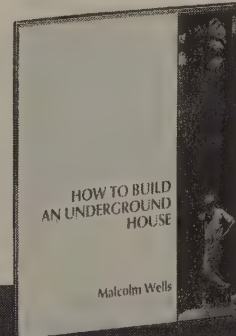
Now it's time to go out of doors and see what this house is going to look like, how it can be landscaped. The place to start is at the wall, with an outside-the-wall detail that's got to be mentioned. I show rafters extending through the wall, to add more interest (and a place for vines to grow). But the rafter tops would interfere with the roof-edgedrip detail if they weren't modified - like this:



How To Build An Underground House

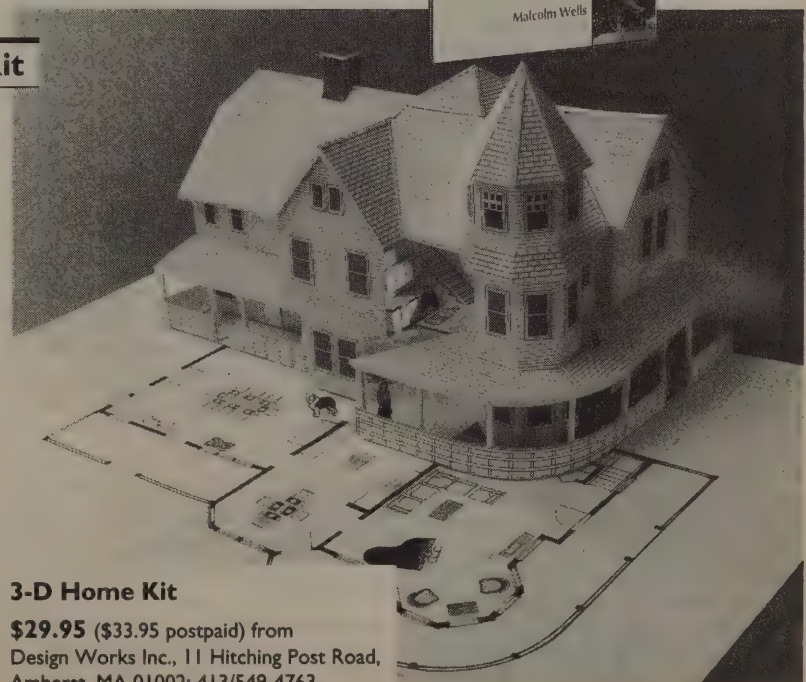
Malcolm Wells, 1991; 96 pp.

\$12 postpaid from Malcolm Wells,
673 Satucket Road, Brewster, MA 02631
(or Whole Earth Access)



Design Works 3D Home Kit

We've featured Design Works home planning kits before. We found them useful aids, but they resulted in floor plans or mere drawings. Believe me, you can lie to yourself (and innocent bystanders) with drawings. This kit allows you to easily construct true scale models of your dream house, enabling you to better consider spatial matters. All the parts are there waiting to be cut to size and installed as your imagination will. However, as your reviewer, I would be remiss if I failed to point out that this sort of thing works usefully only if your tastes tend to the narrow selection of anachronistic styles and construction techniques known as "traditional." Moreover, the kit does not guarantee graceful proportion or other aesthetic considerations; you can as easily model up an architectural horror show as not. Use with care. —J. Baldwin



3-D Home Kit

\$29.95 (\$33.95 postpaid) from
Design Works Inc., 11 Hitching Post Road,
Amherst, MA 01002; 413/549-4763

Going Off The Beaten Path

When Mary Dymond Davis published her innovative and excellent *Ecologist's Guide to France* (WER #63, p. 131), I opined that it would be nice if somebody did the same for the USA. She has.

This eclectic, fat menu of environmentally worthy activities and scenes will guide you to such destinations as California's famed windmill sites, a selection of working bioshelters, all manner of interesting projects in progress (some joinable), wildlife refuges, and bike trails. In other words, the good stuff. Access information is furnished, though as is inevitable with this sort of thing, some of it is out of date already. (Confirm the information before leaving.) You could spend a worthwhile year on the road looking at all this stuff. —J. Baldwin

■ **OKEFENOKEE SWAMP** (438,000 acres) Southeastern Georgia and northeastern Florida

The Okefenokee Swamp is basically a vast peat bog, once part of the ocean floor, though now 103 to 128 feet above sea level. Nine-tenths of the swamp has been made a National Wildlife Refuge, within which is a designated wilderness of 353,981 acres. From the Okefenokee, the Suwanee River flows to the Gulf of Mexico; the St. Mary's to the Atlantic.

The swamp contains only a few short hiking trails. Canoeing is the way to see most of the swamp, and the Fish and Wildlife Service maintains several canoe trails. Designated trips take two to five days, and canoeists spend nights on wooden platforms. Each trail is limited to one party a day. Paddlers pass islands and lakes, but most of the area is "prairie," where vegetation grows through water. Cypress trees draped with Spanish moss dominate the swamp, and at some points canoes must travel through tunnels cleared through vegetation.

American alligators are common. During the winter, when they become relatively inactive, River otters swim carefree in the lakes and boat trails. The endangered Red-Cockaded woodpecker, and the Florida Sandhill crane, osprey, Round-Tailed Water rat, and anhinga are all swamp residents (as is Walt Kelly's Pogo, in his wisdom the first to declare, "We have met the enemy, and it is us").

The swamp has three entrances; one is privately administered and another administered by the state of Georgia. Canoeists should enter through the third, the east entrance managed by the U.S. Fish and Wildlife Service. Reservations for canoe trips can be made by phone as early as two months in advance. Call 912-496-3331. For information contact the refuge at Route 2,

Box 338, Folkston, Georgia 31537.

● **ARIZONA - SONORA DESERT MUSEUM** 2021 North Kinney Road, Tucson, Arizona 85743; 602-883-1380

The Arizona-Sonora Desert Museum has as its theme caring about and effectively communicating the totality of the Sonoran desert — from its diverse water and sea life to its mountain ranges. One of its activities is therefore trying to save the many desert animals who are vulnerable to extinction. It breeds the endangered Mexican Gray wolf, and is assisting in saving the endangered Desert pupfish, Sonoran chub, and Gila topminnow among other fishes. It is also breeding the endangered Thick-Billed parrot for reintroduction to its home in Arizona's Chiricahua Mountains. (The Thick-Billed parrot survives in diminished numbers in Sonora, Mexico, and was recently reintroduced by the Fish and Wildlife Service to the Chiricahuas.) These species can be seen at the museum.

Here visitors can observe animals and plants alive in their desert setting and can visit a geological interpretive center that tells the story of the Earth's evolution. The museum operates an outstanding educational program with opportunities ranging from a childrens' toadwatch at desert rain pools to a traditional Saguaro harvest.

The museum opened in 1952, the year that

Joseph Wood Krutch (1893-1970) moved to Tucson. Krutch had been a drama critic and professor of English literature in the East. After moving to Arizona, he became an ardent conservationist and the author of essays on the desert, which were respected for both their accuracy and literary quality. His books include *The Desert Year* (1952) and *The Voice of the Desert* (1955), both published by William Sloane Associates. He served on the Board of Directors of the museum through which he influenced some of its early decisions.

The museum is open every day of the year from 8:30 a.m. - 5:00 p.m., but has expanded hours in the summer (7:30 a.m. - 6:00 p.m.). Visitors are advised to come early in the day when the animals are most active and the number of visitors at a minimum. Admission is \$6.

Going Off the Beaten Path

Mary Dymond Davis, 1991; 457 pp.

\$15.95 (\$17.95 postpaid) from The Noble Press, Inc., 213 W. Institute Place/Suite 508, Chicago, IL 60610; 800/486-7737

The Peace Corps and More

*Bureaucratic frustration (at least from our own government) needn't keep you from good work in countries where your skills are welcome. Here's a description of more than 100 organizations — most of them small — that might be able to engage you in some worthy enterprise. The information is accompanied by some wise advice on how to proceed, as well as how to get along when you get there. By the same folks who brought us the exemplary *Bridging the Global Gap* (Ecolog p. 93). —J. Baldwin*

● While you may exclude a few places you find particularly objectionable, if you are unwilling to be associated with U.S. foreign policy in general, then the Peace Corps is not for you.

■ **World Teach** HIID (Harvard Institute for International Development) 1 Eliot Street, Cambridge, MA 02138 (617) 495-5527

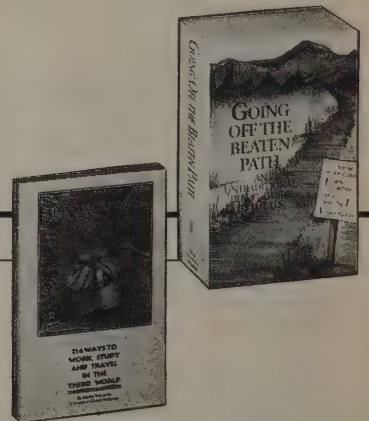
North American college graduates are sent to Namibia, Costa Rica, China, Thailand and Poland for a one-year teaching commit-

The Peace Corps and More

Medea Benjamin, 1991; 92 pp.

\$6.95 (\$8.45 postpaid) from Global Exchange, 2141 Mission Street #202, San Francisco, CA 94110; 415/255-7296

ment in high schools. Volunteers teach English, natural and social sciences, mathematics, art and home economics. The volunteer pays a fee which covers the cost of round-trip air fare, health insurance, orientation, field support and program administration (estimated at \$2,950 to \$3,450). The host school, community or government provides housing and a monthly salary at least equivalent to that of local teachers (estimated at \$72-\$150). World Teach also has an 8-week summer program in China, where participants teach English and study Chinese. A college degree is required for the one-year program; the summer program is open to undergraduates.



The Original, Unauthorized UpCountryWithoutAPaddle Peace Corps Survival Manual

Plenty of experienced, sometimes contrarian personal opinions make this book part of your basic homework if you are considering the Peace Corps or any other government-sponsored assistance program. My stint as a college/Peace Corps liaison person tells me that the information is right on target, and should help reduce the shocks that embitter so many volunteers. Some readers may quibble that the author includes too much of his personal agenda, particularly concerning the Vietnam war, but at least he doesn't speak with forked tongue. Now you can't claim you weren't warned. —J. Baldwin

What happens, apparently, is that when Peace Corps volunteers unwittingly get in the way of strategy devised by American intelligence the Peace Corps Country Director is informed. As near as I can figure it, those Peace Corps Country Directors are probably the only overseas Peace Corps people who have any dealings with the CIA at all.

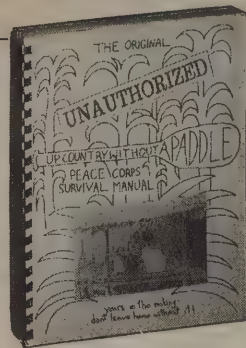
First and foremost, you're not obligated to be happy in the Peace Corps any more than you are obligated to be happy in any American-based situation; nor are you under any

obligation, either implied or otherwise, to make others around you feel happy and secure.

In my particular program, we needed motorcycles to reach project sites, but, due to a liability problem, Peace Corps could not officially sanction the use of motorcycles and thusly allowed us only a seventy-five dollar bicycle allowance.

Needing motorcycles to do our job, we bought them as a matter of course, and this was one way I rationalized the need to falsify Thai government per diem reports. That is, claiming "full" per diem from the Thai government on falsified government forms increased our salary by a nifty fifty percent.

The line of men walking down the side of the road with hoes over their shoulders might be an unemployment line for you, but you don't have to feel guilty stepping in just because your Peace Corps check is worth several times what these villagers would earn on the local economy IF they could find a wage paying job. It's probably even OK to help plant rice during rice



**The Original (etc.)
Peace Corps Survival Manual**
Lawrence Thistle, 1990; 152 pp.

\$12 postpaid from Shenandoah Heartley Publications, P. O. Box 1109, El Mirage, AZ 85335-1109

planting season even though your daily Peace Corps wage may be five to ten times greater than that of a hired worker right beside you. There's nothing wrong with that, even if the hired worker is far more productive than you are. It's not your fault. It's not his or her fault. It's just the way it goes sometimes.

The American Camping Association 1991/92 Guide to Accredited Camps

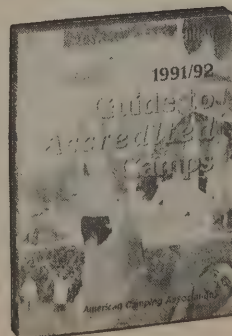
This is the outfit that accredits summer camps in much the same way AAA rates motels. Their standards are high. Inevitably, there's emphasis on squeaky-clean and safe places that may be assuring to the parents (and sue-resistant for the operators), but too regimented for more imaginative types. ACA doesn't accredit the programs we applaud in the *Ecolog* (p. 114), for instance. However, a read betwixt the lines will reveal an astounding variety of available areas of concentration: specific skills and sports, computers and robots, ropes courses, NRA weapons, ATVs, horses, weight loss, Christians, special programs for disabled kids — **The Guide to Accredited Camps** tells all. It's a lot better than guessing (but not as good as word-of-mouth). The Association also publishes a guidebook for program leaders as well as a bunch of other stuff of use to teachers and parks-&-rec folks. —J. Baldwin



Chapel Hill — Chauncy Hall Summer Theater School.

1991/92 Guide to Accredited Camps
1991; 260 pp.

\$10.95 postpaid from American Camping Association/Attn.: Bookstore, 5000 State Road 67 North, Martinsville, IN 46151-7902; 800/428-CAMP





HE LAST DECADE HAS SEEN a huge upsurge of interest in what is now called "World Music." The technical reason for this is that records have become available allowing people to participate in the music of other cultures with an ease and breadth that was not possible earlier. But actually, that situation has existed for a long time — since the "ethnic" recordings of the forties

and fifties. But it is only comparatively recently that this has interested more than a handful of specialists.

I believe that this new, widening popularity results from something other than simple availability. One of these factors is the increasing ability of people to listen to songs without being concerned to know what they mean: the "language barrier," in the past always cited as the main reason that "ethnic" music could not become popular, has suddenly fallen. It now seems that nobody minds if Salif Keita sings in Arabic, Youssou N'Dour in Wolof and Zvuki Mu in Russian. Perhaps this means that people are listening to *music* now, rather than specifically to *songs*: perhaps it also means that the composers and musicians of the world are making new forms of music that do not depend on language as much as they used to.

But perhaps a more important reason is the breakdown of a world view that says: "We, and our values, are the hub, the norm, the center, and everyone else is a kind of aberration from us." Of course, this view would lead one to regard other musics as, at best, curiously exotic and at worst, proof of all the nasty things people like to think about each other. And within this "us and them" distinction, there was another subdivision. Our version of it was called the Western classical tradition, and it maintained that there was High Music — the type that the people who wrote the history books liked — and there was all the rest, the stuff that everyone else liked. This picture maintained that innovation always worked from the top down-

wards — that the pure ideas of the great composers found their way, in degenerate form, into the popular music, and that, therefore, these popular musics were necessarily dilute and comparatively less "valuable" and "enduring." Occasionally there was an acknowledgment that this flow could be reversed — Kodaly and Bartok, for example, borrowed from rustic folk dances — but then it was assumed that the raw material of folk culture would be enhanced and ennobled in the hands of a great composer.

DISTINCTIONS OF THIS KIND are interesting because they notify us about the limits of our empathy. If we really have no feeling whatsoever for the music that so deeply moves somebody else, surely this indicates that there is a part of their psyche that is closed to us. How important is that part? What does music represent in this sense?

Take a particular case: what does it tell you about somebody that they begin to like (for example) West African music? Well, it tells you that their focus of attention as a listener is starting to shift. Nigerian music downplays harmony and melody in favour of extremely rich and complex rhythmic meshes. These engage a different part of

you: they are extremely physical, sexual and movement-oriented. They deal with the body, an area that Western classical music (for example) rarely addresses. When a listener is moved by this music, she is allowing herself to accept the idea

Why World

that her body is a fit focus for artistic attention: she is saying (in the words of the artist Peter Schmidt) that the body is the large brain. Our cultures, which have made such a big distinction between "men of action" and "men of thought," might find this hard to accept; all our hierarchies are based upon the idea that the brain is good and the body inferior. I believe that, in the process of being moved by Nigerian music, you begin to empathize with another view of the universe, another picture of how things work and how they fit together. And in noticing how you have the capacity to empathize with that, perhaps you take a further step and begin to suppose that their cultural values are also "possible" for you. It doesn't mean that you are going to become Nigerian, but it might mean that you can begin to get a feeling of what it is like to be Nigerian, what kind of world you might be looking at, through what kind of eyes.

IT WOULD BE NAIVE to assume that this broadening of understanding automatically leads to something like world peace. (It is, after all, standard operating behavior in the subversion industry to know your enemy at the deepest cultural levels so that you can eliminate him!) No, I wouldn't make any such happy

predictions — understanding, like a knife, has many uses.

My hope for the future is not that everyone will sit around the lunar campfire discussing, in Esperanto, the bad old days of division and strife. I wouldn't expect that. What

I want to see is the demise
of fundamentalism in
favour of prag-
matism.

Music?

By fundamentalism I mean any philosophy that thinks it has the final and unique answer, that believes that there is one essential plan underlying the workings of the universe, and that seeks to make sure everyone else gets persuaded to fall in line with it.

By pragmatism I mean improvisation: the belief that there are many approaches, that whatever works in the light of our present knowledge is a good course of action, and that what is the best course of action for us, here and now, might not be for someone else, there or then.

I want to see societies (and people) who know how to improvise, who can throw together a social mode (tuxedo and black Thai) just for the evening, who can move fluently and easily between different social and personal vocabularies as the situation changes, who don't feel lost without the religious reassurance of "thisism" and "thatism." I see these people as hunter-gatherers in the great flux of the world's cultures, enjoying a rich diet of ideas and techniques and styles, creating their own special mixes. There is no snobbism in this picture — no material too common or too exotic to be used, no simple distinction between real and make-believe. This kind of improvisational flex-

ibility entails a continuous questioning of boundaries and categories, a refusal to accept that names necessarily fit accurately onto what is being named. When languages are developing and changing as rapidly as they do now, and everyone is a rap artist, you need all the voices you can get.



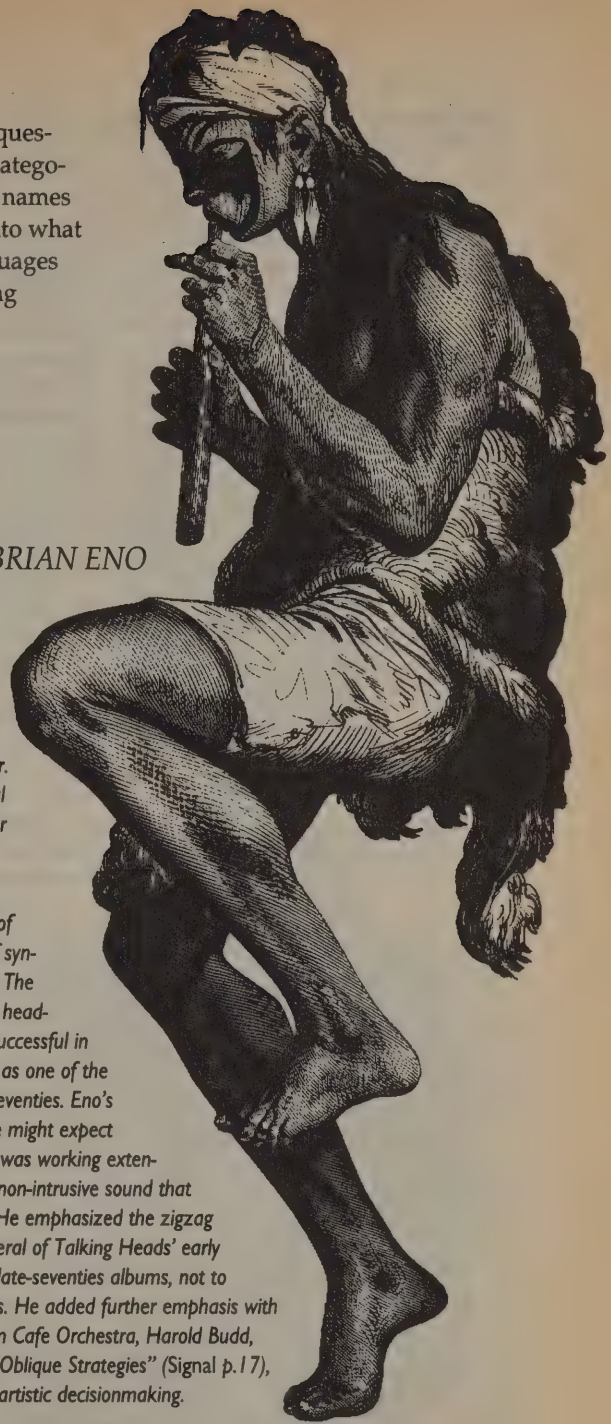
BY BRIAN ENO

Brian Eno is a born boundary-crosser. He has been a pivotal and influential figure in the music and art worlds for twenty years.

*After the art-school education that spawned so many British musicians of the sixties, Eno pioneered the use of synthesizer and tapes with *Roxy Music*. The band never made much commercial headway in the US, but was immensely successful in Britain; it has since been recognized as one of the most significant bands of the early seventies. Eno's first solo albums were as wild as one might expect from his previous work, but soon he was working extensively with ambient tape-loops — a non-intrusive sound that was designed not to be listened to. He emphasized the zigzag by producing Devo's first album, several of Talking Heads' early albums, and three of David Bowie's late-seventies albums, not to mention *Teenage Jesus and the Jerks*. He added further emphasis with gentler music such as that of *Penguin Cafe Orchestra*, *Harold Budd*, and *Jan Hassell*. He also published "Oblique Strategies" (Signal p.17), a set of cards designed to help with artistic decisionmaking.*

*In the eighties, Eno expanded his public profile with video works and audiovisual installations in airports, art galleries and museums. He continued to work with a diverse array of other musicians, from John Cale to U2. In 1981, he provided an early stimulus to interest in world music with a Ghanian band, *Edikanfo* (The Pace Setters, Editions EG, EGM 112), and his collaboration with David Byrne, *My Life In The Bush Of Ghosts* (Sire 6093-2), which integrated found vocals from ethnic recordings with sinuous, ethereal *avant-funk*. Most recently, Eno produced the latest U2 album, *Achtung Baby* (Island). If you're interested in reading more of Brian Eno's words, he wrote about the making of that album and his philosophy of recordmaking in the November 28, 1991 issue of *Rolling Stone*. —Jonathan E.*

In August, 1990, Eno was invited to participate in the judging of The Voice of Asia contest at Alma Ata, Kazakhstan. Unable to attend because he was in the midst of a collaboration with John Cale, he sent a prize to be awarded on his behalf. Eno's wife, Anthea, delivered this speech, written by Eno, to an audience of 15,000 and awarded the prize to a Siberian throat singer from Tuva. Anthea made the speech with the Enos' six-month-old daughter in her arms. —Howard Rheingold



Planet Drum

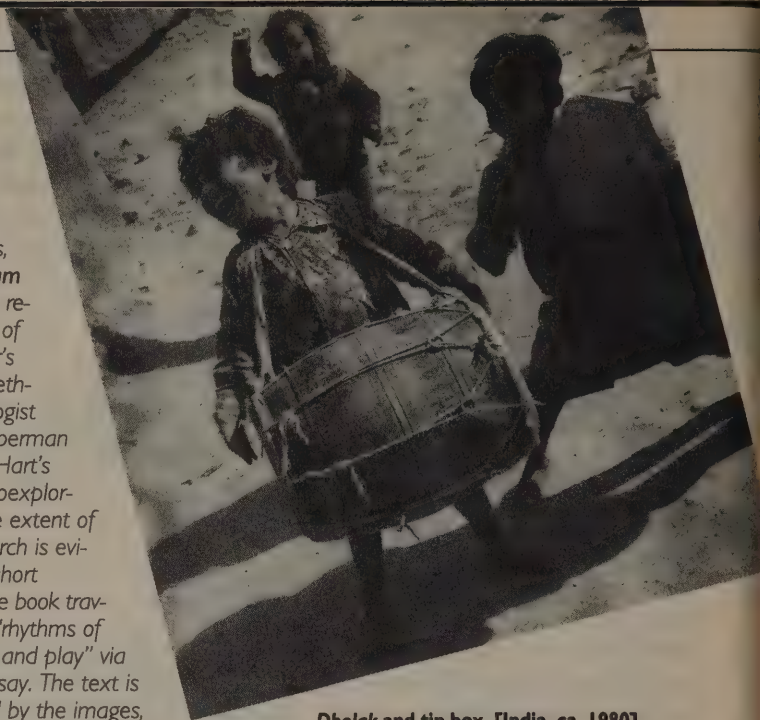
This book has a spirit. It takes you to another place. You don't need a video-disc player and a fancy computer to experience multimedia. Read this book, look at the pictures, listen to the CD, and . . . fall into the trance. It works, and it's between three and four orders of magnitude cheaper than a state-of-the-art multimedia system. This picture-book-with-soundtrack is the first nonchemical technology I've ever experienced that can, with a bit of attention, serve as a metaphysical transportation device.

Planet Drum (the book) is an exceptionally well-researched look at the world through the perspective of percussion. While **Drumming At The Edge of Magic** [WER #70, p. 88] looked at the role of percussion as a consciousness-alteration

technology, through the story of Mickey Hart's life and travels, **Planet Drum** appears to reflect more of his partner's influence: ethnomusicologist Fredric Lieberman has been Hart's scholarly coexplorer, and the extent of their research is evident in a short browse. The book traverses the "rhythms of work, war, and play" via a visual essay. The text is dominated by the images, and there's a lot of mojo in the images themselves — rare photographs of spirit-possessed voodoo drummers, human-bone instruments, sufi ceremonies in Cairo, Nepalese shamans, kiva dancers. These people, all over the world, are onto something, and you can get the message with surprising directness by listening to the CD while you thumb through the book.

As a fan of their first book, I did approach the CD with the feeling that I didn't feel like listening to all that much percussion. But this isn't ordinary percussion, and it especially isn't an ordinary group of percussionists: In Nigeria, Babatunde Olatunji and Sikiru Adepoku are national institutions. Zakir Hussain is an extraordinary scion of a long Indian drumming tradition; Hussain comes from a place where there are hundreds of millions of tabla fans,

This clay tomb figurine depicts a singer/storyteller accompanying himself on a small drum. Similar solo drumming and singing continues to the present day in China. [China, 25 - 200 A.D.]



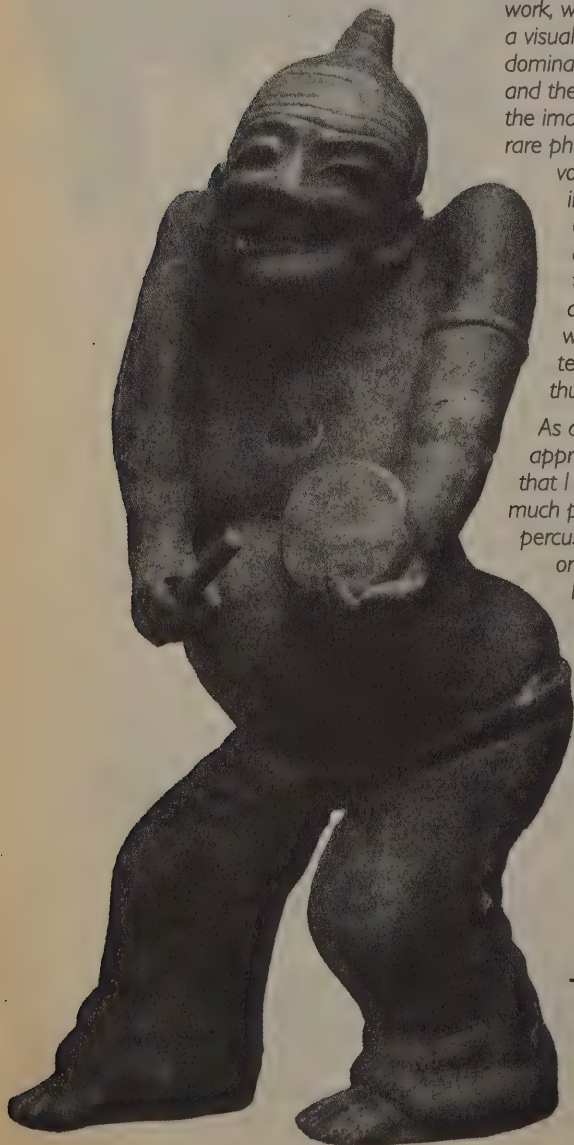
Dholak and tin box. [India, ca. 1980]

Five-gallon pail, played by Larry Wright. [United States, 1989]



and a formidable tradition of master percussionists. Airtó Moreira and Flora Purim have preeminent status in Brazil. Getting a group of drummers, the stereotypical prima donnas of the music world, to fuse into one planetary drumming choir, must not have been easy; Mickey Hart gets credit for that.

When Hart appeared on a network TV show with a monk from the Gyuto Choir, the host asked what the drummer of the Grateful Dead and a Tibetan chanter have in common. "We're both in the transportation business," Hart replied. This book and music provide the opportunity to find out what he meant. —Howard Rheingold





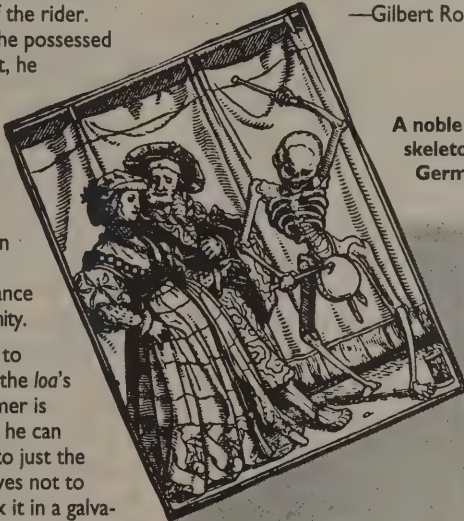
Accompanied by the drums of the vodun ritual, the man at left is possessed by the *loa* (spirit) of Dambala, a snake spirit believed to be the positive force that encircles the universe. [Haiti, 1946]

• *Divine Horsemen*

In the terminology of Voudoun, it is said that the *loa* "mounts" a person, or that a person is "mounted" by the *loa*. The metaphor is drawn from a horse and his rider and the actions and events which result are the expression of the will of the rider. Since the conscious self of the possessed person is, meanwhile, absent, he cannot and does not remember the events; he is not responsible, either for good or for bad; and he cannot, as a person, himself benefit from that possession. The function and purpose of such divine manifestation is the reassurance and instruction of the community.

The drummer . . . becomes, to some degree, the arbiter of the *loa*'s arrival. . . . When the drummer is particularly gifted and acute, he can permit the tension to build to just the level where the "break" serves not to release tension but to climax it in a galvanizing shock — the first enormous blow of the "break" — which abruptly empties the head and leaves one without any center around which to stabilize.

This is a state of helpless vulnerability. Instead of being able to move in the long, balanced strides of relaxation, the defenseless person is buffeted by each great stroke, as the drummer sets out to "beat the *loa* into his head." The person cringes with each large beat, as if the drum mallet descended upon his very skull; he ricochets about the peristyle, clutching blindly at the arms which are extended to support him, pirouettes wildly on one leg, recaptures balance for a brief moment, only to be hurtled forward again by another great blow on the drum. The drummer, apparently impervious to the embattled anguish of the person, persists relentlessly; until, suddenly, the violence ceases, the head of the person lifts, and one recognizes the strangely abstracted eyes of a being who seems to see beyond whatever he looks at, as if into or from another world. The *loa* which the song had been invoking, has arrived. —Maya Deren



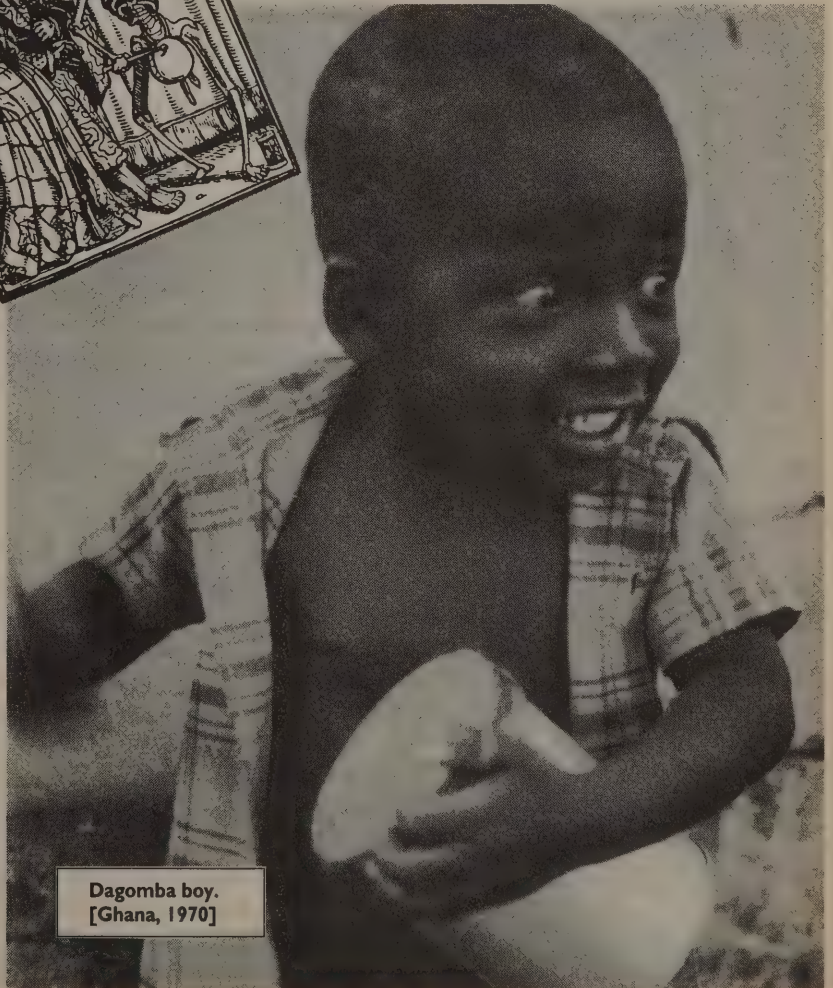
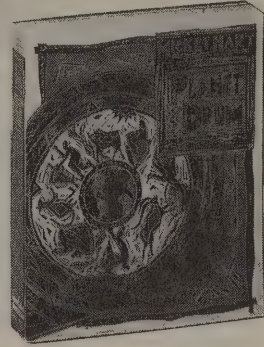
A noble couple is drummed off by a tabor suspended from the skeleton's waist. [Noblewoman, by Hans Holbein the Younger, Germany, sixteenth century]

• "Nothing could be more striking . . . than the contrast one can observe among the Wolof of Senegal between the behavior of the marabouts who seek out ecstasy in the silence, solitude, and darkness of their grottos and that of the practitioners of the *ndop*, who enter into trance in the midst of a dense crowd, stimulated by drink, agitated by wild dancing and the din of drums."

—Gilbert Rouget

Planet Drum

Mickey Hart and Fredric Lieberman, with D. A. Sonneborn, 1991; 224 pp. **\$24.95** (\$28.45 postpaid) from HarperCollins Publishers/Direct Mail, P. O. Box 588, Dunmore, PA 18512; 800/331-3761 (or Whole Earth Access)



Dagomba boy. [Ghana, 1970]

What World



African Ambiance

Island Of Ghosts (RealWorld), by **Rossy** from Madagascar, has a distinct air of mystery and a gentle but moving feeling. The beats are frisky and varied, underpinning accordion, guitar, other instruments with strange names, husky vocals and sweeter chanting that is often reminiscent of South African vocal styles. It is among the most

enjoyable music I have heard in the past year. Also from the eastern side of Africa is **Ali Hassan Kuban** with *From Nubia To Cairo* (Shanachie). His vocals are considerably more guttural and there's a lot of call-and-response with a male chorus. It's turbocharged with wailing reeds and urgent hand percussion, boosted by blasts of brass. According to the sleeve notes there are also electric Western instruments, but to my ears they are totally subsumed by the Eastern veil of sound. It's an exciting style that should particularly appeal to those who like northern and eastern African sounds but find rai somewhat sterile.

Calming down and moving down to South Africa/Azania, we get to *Mantra Mode* by **Abdullah Ibrahim** (Enja), a superb new recording by one of the world's master jazz pianists. He seamlessly joins the jazz idiom with a South African feel, managing to create a relaxed mood without being enervatingly mellow. On this recording he's supported by the tenor sax of **Basil "Mannenberg" Coetzee**, whose own recordings are also well worth looking for though hard to find.

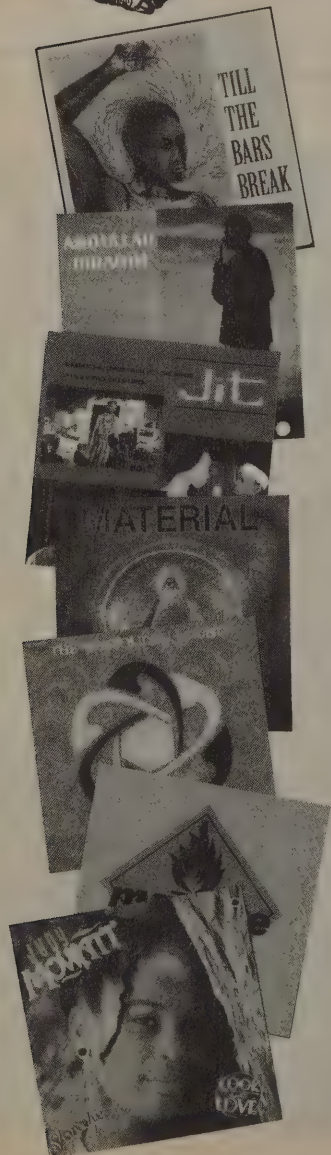
Tracking to the northwest (and also rising considerably on the wailing-guttural scale again), we come to Mali and *The Wassoulou Sound* (Stern's), a collection of five of Mali's foremost women singers. The vocals are powerful, confi-

dent and assured; the music is intricate and almost delicate — an intriguing combination. These are not traditional praise songs. The lyrics deal with the cultural, social, and ecological conditions of the region, which is suffering change and turbulence as the Sahara extends south causing migrations and contributing to political unrest. Both the songs and the singers are distinctive and varied, making this a palatable introduction to previously unheard music.

The Earthworks Label

I can wholeheartedly recommend every single release from only one of the many labels dealing in world music — and that label is Earthworks. The label began in the early eighties with an important series of South African and Zimbabwean collections; it has since expanded to other parts of Africa and across the Atlantic. The past year's releases have maintained Earthworks' high standards and show that there is still a great deal of music out there worthy of wider exposure. *Shumba: Vital Hits of Zimbabwe* is a collection of **Thomas Mafumo** songs from the early to mid-eighties that have not been readily available in the US. Every time I listen to Thomas, his own particular musical importance is reaffirmed while his crucial position in the spreading appreciation of music from other cultures becomes more apparent. (Shanachie has just rereleased *Ndangariro* (WER # 59, p.57), his first non-Zimbabwean release and an absolute classic.) *Jit — The Movie* is a Zimbabwean collection of various artists that shows how wide the range of music from that country is.

Guitar Paradise of East Africa is a lively collection from Kenya and Tanzania, heavily influenced by Zairean styles and containing several classics. *Kenya Dance Mania*, another collection, is a little bouncier and bassier. I find Kenyan music to be an enjoyable alternative to



Music?

BY JONATHAN E.

Zairean styles, in a broad sense similar but with a pleasing change of personality. These two releases make a fine matched pair. *The Kings And Queens Of Township Jive*, South African tunes from the late sixties to the late seventies, is nicely varied. However, one of my favorite Earthworks releases is from New York. **Henry Fiol's** *Sonero* is a selection of tracks from his independent Corazón albums of the mid eighties. His music is based on the Cuban son, and the instrumentation derives from the traditional conjunto line-up. Fiol gave it his own distinctive updating, resulting in a smoldering, swinging sound. The lyrics are emotional journeys through the rough side of Latin American life, with songs about a migrant from a small village being lost in the city, sex-starved would-be Romeos, gambling and hustling.

Tip-Top Hip-Hop

P. M. Dawn's *Of The Heart, Of The Soul And Of The Cross: The Utopian Experience* (Gee Street) overflows with contemporary appeal and addresses the metaphysical issues of life in an admittedly contradictory way. No matter — the essence of P. M. Dawn's message is that we should all be free to be as we are but also, like it or not, that we are all linked as humans as in a chain of "paper dolls." It's a refreshingly sane and hopeful approach, quite different from the gangsta-gangsta school of achieving economic and egoistic revenge through criminal enterprise. The sound is an original acid-folk hip-hop style and about 90 percent samples, a state-of-the-art demonstration of what is possible. It is so pleasurable to listen to that you might dream that the Utopian world is already in full effect.

Massive Attack's *Blue Lines* (Virgin) is another masterpiece, exemplifying the multicultural British approach to creating dance music by breaking down the barriers between reggae, pop and

funky soul. **Massive Attack** digs deep into the downtempo groove and comes up with a style that has the reggae heartbeat but extends it with considerable stylistic imagination. Dub mixing techniques are well to the fore, but what will grab the reggae fan firmly by his or her ears is the immortal voice of **Horace Andy** on three of the tracks, including a reprise of his well-known "Skylarking" lyrics and an ode to monogamy that is heartfelt, yearning and convincing.

The Third Power by **Material** (Axiom) is just about as spectacular, and perhaps even broader in its range of influences. **Sly** and **Robbie** provide their patented mix of reggae and funk bass-and-drums motivating power while mega-producer **Bill Laswell** orchestrates an impressive array of talent into a cohesive whole with snippets of worldly styles icing the top. Vocalists like **Shabba Ranks**, **The Jungle Brothers**, and P-Funkateers **Bootsy Collins** and **Gary Shider** tackle material from dancehall to rap, while the rest of the cast blow up a storm or let things mellow down just the right amount.

Norwegian

For a complete change of pace, try *Nordisk Sang* (New Albion). It's an eerie, haunting collection of Norwegian folk songs featuring flute-and-fiddle instrumentation and pure vocal tones that resonate with the darkness of the long Northern nights. *Gula Gula* from **Mari Boine Persen** (RealWorld) has more instrumentation, including drums, clarinet, and guitars among other more exotic instruments, and is music from even further North — Sámiland, more commonly known by the derogatory term Lappland. Persen has deeper tones than the singers on *Nordisk Sang* and the music is not as purely folksy, but either release makes a fascinating and relaxing contrast to African or dance beats.

Reggae Round-Up

Easy To Catch from **The Itals** (Rhythm Safari) is a catchy, bouncy set of classic three-part harmonies with a modern bright sound that still keeps the feel of old-fashioned soul. **Judy Mowatt's** *Look Of Love* (Shanachie) is an utterly stunning, utterly contemporary, utterly classy album from a woman who transcends all genres to turn in music that simply sparkles. The great DJ originator **U-Roy** reemerges with *True Born African* (RAS). His voice is still a vocal marvel, his lyrics are serious and conscious, and the album has an old-time DJ feel to it while also sounding contemporary, thanks to the **Mad Professor's** idiosyncratic and skillful production. I particularly like the sweet female back-up vocals from various female members of his Ariwa studio posse contrasted against U-Roy's gruff though honeyed tones.

Other Sounds

Are you intrigued by avant-garde didgeridoo crossed with electronics and percussion? *Somewhere* (Recommended) by **Lights In A Fat City** goes beyond novelty into the deeper reaches of musical communion. With a mass of percussion, wind and reed instruments, a computer and sampler, the effect has been described as "techno-shamanism"; the earthy tones of the didgeridoo seal the deal with the deep vibes of truth.

For sounds that are great with words that illuminate, get *Till The Bars Break* (Irresistible/May/Revolutionary), a compilation from known and unknown artists such as **Henry Kaiser**, **Henri Flood** with and without **The Beatnigs**, **L. Troy Dixon**, **Don Paul**, the **Mad Professor**, **Chuck D.**, and **Benjamin Zephaniah**. There are heavy beats — dub, hip-hop, and native American — and spoken word from poet **Jeannette Armstrong**. It's a powerful and impressive recording that illustrates the links between the native- and African-American tragedies.

All releases are available on CD for \$17 each or cassette for \$11 each (postpaid) from Round World Music, 491A Guerrero, San Francisco, CA 94110; 415/255-8411. ✖

BACKSCATTER

Echoes from readers back to *Whole Earth Review* (27 Gate Five Road, Sausalito, California 94965)

We pay \$15 for every letter we publish.

Oxfam, Oceania, and attitude

Thanks for running the graph and explanation on p. 62 & 63 in the Fall issue, No. 72. Are you aware of Oxfam's statement that to give everyone in the world enough food, clothing and shelter to keep alive would cost about what the world spends on military matters every seven-teen days? Makes you wonder — we have the money, resources, even the technology to do everything mentioned in the World Game Institute's graph, but we spend four times that much already and won't reallocate it.

The article on Oceania navigation has a parallel in Anne Cameron's *Daughters of Copper Woman* (Harbour Publishing in Madeira Park, BC). Cameron describes how the coastal peoples in BC navigated to Japan and Hawaii by using ocean currents and singing songs passed down by rememberers. Lines with knots could be tossed into the water; and the rate at which the knotted line slipped through the fingers of the singer, who kept time with the song's cadence, would allow the speed of the dugout to be calculated relative to the known constant speed of the ocean current for which the song was made. It was a useful skill especially when combined with other navigation techniques. There was regular travel on Klin Otto (the Japanese Current), even if fewer people rode their great canoes than ride today's 747 airplanes.

The European attitude about Polynesians might have been very different if the first contact had occurred hundreds of miles out at sea, and the Islanders had navigated their visitors to an island. Lord knows, the dugouts that met Cook at Friendly Cove were twice as long as his European boat, yet his respect for the Vancouver Island natives was limited to the healers who treated his rheumatism.

Thanks for another good issue. Keep going!

Paula Johanson
Legal, Alberta

The drug war has gone too far

Sitting in your ivory towers making laws against the flowers, while flowers of choice (your choice) are fine:

coffee, cigarettes and wine.

State Supported.

State Promoted.

Advertised and subsidized.

Spending billions watching millions.

Make the cartels rich as nations while you pass your legislations designed for sound-bite spin gyrations.

Confiscate a home, a car.

Bend over search.

Piss in the jar.

Wiretaps and pre-dawn busts

Pot Commandos, power lusts.

"Burn their crops,

corrupt their cops,

drive prices to their tops"

Supply-demand and rising prices paid in blood and sexual vices.

They cope with dope

and it's you that pays

with midnight fear of alleyways.

Torching pipes and laying lines.

Who'll be first to change their minds.

The drug war

has gone too far.

Jim Ware
Wheeling, Illinois

Formerly gaga about technology; currently hung over and contrite

Just pulled the most recent issue of *WER* (#73 — Questioning Technology) out of the mailbox, and I have to say it is high time you brought the matter of our collective addiction to destructive technology into the *Whole Earth Review* forum. Here is a definition I think very defensible sociologically, environmentally and historically: "Machines? Machines are things which allow people to become very powerful without becoming wise." Throughout the past several years, though I remained an avid reader and subscriber, I was becoming more than a little disgusted with the folks at *WER*. Several letters I wrote in white heat but didn't send made the argument that a universal embrace of information technologies by

everyone, entities large, middle-sized, and small — a revolution fervently embraced, if you recall, by *Whole Earth Review* as almost incapable of harming anyone — could become, if we all did not stay very much on our guard, a means for political, economic and environmental tyranny over earth, plant, animal and society by interests which are always out there and always vested. In my increasingly frequent bouts of "ecological bioparanoia" I become less and less easy about the future of humankind and the parts of the world we choose to crowd with our numbers and our activities. In these interesting times, technological true-believers are far less valuable to us all than technological skeptics. I hope the recent issue is nowhere near your last involved discussion in which you (and all of us, your readers) question the technology which is, or seems to be, inevitable.

Dwight Hales
Haines, Alaska

No peace in our dotage

I must respond to Nancy Rhine's introduction to *Alternatives to the Peace Corps* (*WER* #72, p. 83), where she states: "Now that we baby boomers are almost finished raising our kids . . ."

Many of us baby boomers are just starting to raise our kids. Delays due to career meanderings and infertility have resulted in us being older parents of younger children. We are different than many preceding generations for this reason. (And all the other reasons — the first TV generation, the first birth control pill generation, etc.)

And many more of us could not — because of disabilities or economics — have or afford children, or decided not to have children, or never wanted to have children to begin with.

At age 40, I eagerly await the arrival of my first child. Many of my contemporaries started to have children in their mid thirties; as they turn 40, their eldest are turning 5. We will be raising children in our 50s and 60s.

In 20 years there will be a sizable group of people raised by mature adults rather than youngsters in their teens and twenties. What will these people be like because of this? What form will their rebellion take? Will they rebel at all? Perhaps because of their older but wiser parents, they will be the first to break

the cycle of war and ignorance carried on by generations of humans born of early marriages and no birth control. They will be an interesting group.

Michael Sklaroff
Jamaica, New York

Grim-but-efficient vs. inaccessible

I'm not sure exactly how to respond to Patricia Glass Schuman (Reclaiming Our Technological Future, #73, p. 74). Her article, like a lot of articles in *WER*, presupposes a gentle, leisurely world, in which humans respond warmly to humans as humans. That's nice if you can find it. But it just isn't the world many of us have to live in.

The reality is that many of us have to live under conditions of Taylorism or Fordism. The appropriate symbol of our age is a long, slow line, waiting to see an attendant who sits behind bulletproof glass, has no discretion, or even knowledge of the wider aspects of the operation, and who is under pressure to work as fast as possible.

Under those conditions, dealing with a machine is a victory for humanity. If a computer won't deal with you as a person, then at least it recognizes you as a unique fact, which is more than can be said for many bureaucratic service organizations. And here's a thought for you: computers can give humans the spare time to deal humanly with humans instead of behaving like machines in a hurry.

All this applies to libraries, just like any other organization. It's all very well to talk about THE LIBRARIAN, but in many libraries, there are so few of them, and they're so inaccessible to library users, who actually have to deal with semi-skilled attendants who, at most, know the office routine, and sometimes not even that. I look at some of these people, and think that I'd like to have the tools to be my own reference librarian. And that is what the electronic library promises to do. And that is why I am in favor of it.

The worst possible combination is a large impersonal bureaucratic organization pretending not to be one, because then it does not even employ the bureaucratic remedies at its disposal.

Andrew D. Todd
Philadelphia, Pennsylvania

... On the other hand, define "inaccessible"

I couldn't help agreeing with Patricia Schuman's recent article — libraries are here to stay! Their future is assured by the difference between knowledge and information.

As wonderful as all the new technology is, something still seems to be lacking. There's a lot of data, but it so rarely seems to jell into real knowledge. Vast collections of facts are never as good as a few things well digested. That same *Information Anxiety* book that Ms. Schuman mentions has a good story about a professional trying to keep up with all the information flooding into his field. In the end he is forced to admit defeat. There's just too much to cover.

Perhaps it's better to see the search for facts in the same sense as a game of chess. The game is as logical as anything can be, but there's not enough time to follow all the possibilities to their outcomes. All you can do is to pick a path that seems promising and see if you're right. After all, with so many opportunities for an answer out there the odds of bumping into what you need are really quite good.

That is why libraries (well-funded) and librarians (professional and well-paid) are so very important. It's good to have someone around with a solid sense of direction because there's just no telling where what's needed will be found.

Ms. Schuman also makes a fine point when she addresses the obstacles in the path of home computer access. Setting aside the huge problems of poverty and illiteracy, even the middle class has a hard time affording a computer, advertising notwithstanding. (I have middle-class friends who work in retail electronics stores and haven't gotten round to buying a CD player yet.)

I'm constantly amazed by the glib way computer access is treated by most publications. As a rule, people pushing access seem to be journalists, engineers etc.; people who work in places where the machines are available and provided by the employer. This leads me to propose a rule for the propagation of a new technology — those with subsidized access will embrace the technology first.

It's not that easy to plunk down \$1000 for a home computer when there are so many other items of proven utility. The

same amount could buy fuel, food, transportation, housing (as in rent) — any number of things. Where is the incentive to buy something when you're unsure of the utility? Where is the exposure to this technology supposed to occur for a bus driver, plumber, or electrician?

It's especially odd considering the way other information nets work in our society. If you want to connect to the phone system, you don't spend a grand for a phone; you just join the system and the system supplies the phone needed to interface. If you want your television hooked to the cable network, you don't shop for a converter box and then join; you just sign up, and they provide the needed equipment. Everything's reasonable, and if you decide the system is not for you, it's easy to disconnect too. There's no major financial commitment.

But, if a person wants to explore the brave new world of telecommunications it means a major purchase before even getting near the system. And if it doesn't pan out, you're still stuck with the machine. (*The Wall Street Journal* says that half of all home computers sold sit on the shelf because after the purchase the new owner found he really didn't need the machine in the first place.) All this for a unit guaranteed obsolete in five years or so.

I'm not opposed to this use of technology. It's just that so many of us are never going to have the chance to decide about its value. It's still not a part of the world for many people. The library often is the only game in town (along with tag sales and used bookstores).

Speaking of economic limits, Ms. Schuman's mention of user fees was pretty scary. I'm close to both the New Haven and Bridgeport public libraries and it's sad seeing major sources crippled for lack of funds. It's hard to say what's worse, fees for access or no access at all.

For now, I'll stick to the low-cost, desultory approach to information. I drive a bus for a living, so I'm painfully aware of my limit to electronic access on the job. (My paycheck does a pretty good job of limiting my access at home as well.)

All I can say is: see you at the library.

Richard M. Fraser
Oxford, Connecticut

In defense of Gatto

A couple of comments in response to Hugh Foster's letter in #73 about John Taylor Gatto ("The Six-Lesson Schoolteacher," #72, p. 96):

First, I'm compelled to defend Gatto himself a bit. Foster suggests that anyone so cynical toward teaching in the public schools needs a new job. For the record: Gatto *has* a new job. Having resigned, he continues to implement his unique "guerrilla curriculum" at the Albany Free School, and also lectures nationwide. In his lectures and his writing Gatto not only adeptly denounces the public schools, but also makes radical suggestions for improving them. These suggestions are grounded not in hypothetical clouds but rather in his own innovative methods of teaching which involve com-

munity service projects, independent study, apprenticeships, and solitude.

Also, I feel almost personally offended as I read the sour grapish words, "I'm certainly not enough of a politician to do what one might have to do to become 'State Teacher of the Year.'" Gatto's work speaks for itself; such a comment is a nasty swipe below the belt.

But I have more business than warding off character defamation. Two paragraphs of Foster's letter bug me a lot. First, his idea that kids need more direction, not less, is based not on any true understanding of fundamental human nature, but rather based on what kids turn into *when they are sent to school*. Since so few children in the U.S. *don't* go to school, we have few ways of knowing how much guidance human beings inherently need. However, we do have at least one signifi-

cant way of knowing, thanks to the lives of homeschoolers, many of whom I prefer to think of as *unschoolers* — kids whose happy, creative, intelligent lives give an enticing vision of what's possible when self-direction is never replaced by institutional control.

I offer an analogy. If you gather up a bunch of heroin addicts, take away their heroin, and watch the ensuing despair and chaos, the obvious immediate solution is to give them back their heroin. Same with kids and school/mind-control. Once most of them are accustomed to being told what to do, and accustomed to their own role of resisting and adjusting to control rather than controlling themselves, of course things are going to look crazy if you suddenly set them free to learn on their own. By that time, most of them equate "learning" with institutional control; they're not much to blame for any resulting apathy.

But, once again, the examples of homeschoolers offer a hopeful vision. A lot of them start homeschooling after years of regular schooling. At first, many of these new homeschoolers do nothing that seems productive. Weeks and months flow by. Parents worry. But gradually, life returns. These kids gather their wits and their dreams around them and they go on to live lives real beyond the imaginings of most of their schooled peers. Some ride bikes across the country, some fish all day and look in microscopes at night, some read incessantly, some pursue "academic" subjects like archaeology in an intense scholarly fashion, some win freestyle biking competitions. But these activities are not themselves the point; the point is that they are done from the heart, rather than from a cheap sense of duty and the trivial pursuit of good grades, teachers' smiles, diplomas.

The other part of Foster's letter that especially gets to me is the industrial paragraph. The analogy between children and "reject parts" reveals much of the problem inherent in the way teachers and other schoolpeople view their work. Yes, thanks to the enduring partnership between the industrial revolution and compulsory schooling, schools *are* factories, but any educator with the slightest bit of idealism or hope ought to be furiously resisting this partnership, not encouraging it through such language. *People are not parts of products!!* Anyone who seeks the rewards of teaching (and there

Wouldn't they be awfully unwieldy as pens?

10/18/91

James R. Mooneyham
207 Lincoln Ave.
Newport, TN 37821
615-623-0854

Dear Mr. Rheingold;

Please don't let them destroy our *CHEAP* route into space!

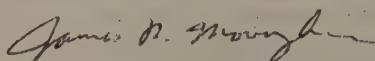
Couldn't many of the existing American and Soviet missiles lift payloads into orbit?

Destroy the nuclear warheads, **NOT THE MISSILES!**

I heard on the news they're going to make ink pens out of them for charity!

HELP!

Sincerely yours,



James R. Mooneyham

are many rewards, contrary to much sniveling amongst the profession) must also accept the charge of working with all the students who come her/his way. No fair self-righteously excusing oneself on the grounds that one has been given "defective parts" with whom to work. (I'd guess that actually Foster is a plenty conscientious teacher, but such language is misleading and harmful even if it's not used to excuse irresponsible teaching.)

Before signing off, I have some acknowledging to do. By no means is Foster completely off base. Of course a lot of "what we need is parents who care about their kids enough to spend some time with them rather than money on them, who care enough about their kids to teach them *by example* the value of old-fashioned things like commitment." It is evident from Gatto's writing that he agrees. And I agree. But "kids who bring themselves up because no one gives a damn about them" are a far cry from kids who bring themselves up because someone loves them enough to give them both support and freedom in which to fully explore their own hearts' desires.

More of Gatto's writing, by the way, can be found in a new collection of his essays entitled *Dumbing Us Down* (New Society Publishers, 1992).

Grace Llewellyn
Eugene, Oregon

Not for the paranoid

We were astounded to be left out of your summer edition on Electronic Democracy. Voting by Phone may be the newest organization in the field, but the principle is the oldest, first proposed by Buckminster Fuller in 1940.

With the recent explosion of telephone service bureaus providing toll-free (800) services, there are 400 or so companies now prepared to offer telephone voting to millions in a day, at about 10% of the costs of elections now, with *greater* security.

The American people have largely given up on "representative" government — they don't vote. This is the original and best way to give our representatives some competition — by streamlining the initiative process. Californians especially should see the value of voting monthly on a few issues while they are timely instead of dozens at once in November. By reducing the petition requirements,

the process will become accessible to more than just the rich and powerful, making it a true *citizen* initiative. Also, people will be bothered much less for their signatures!

Voting by phone is much more convenient, weather-proof, economical, and ecological. Unlike the other proposals in your summer edition, it builds on existing technology and initiative legislation, which is the law in 24 states.

We hope you will write a story on the project. People can get our new brochure by writing: Voting by Phone, 774 19th St #5, Boulder CO 80302 (please send a stamp), or calling (303) 444-3596 or by E-mail: evanr@cs.colorado.edu

Evan Ravitz, Director
Voting by Phone Foundation

Try giving it to the postmaster personally

I read an article entitled "The Stamp Act" in your Summer 1990 issue.

It described how you could send a postcard to elected officials in Washington, DC for \$0.01. The article showed a sample of what the postcard should look like — it had "First Amendment Class" written below where the stamp goes, and had a quotation, presumably from the constitution.

Anyways, to make a long story short, I printed up 80 of these postcards, bought 20 one-cent stamps, and sent one out to see if it would go, or if it would come back.

It came back. Hopefully this will save others from making the same mistake. I hope you will inform your "Johnny Postseed" and his organization (no address was printed for either) that this "reverse franking privilege" does not work.

Edward A. Bertsch
Minneapolis, Minnesota

Rover and the bifurcated weltanschauung

being a long distance away probably emboldens me to say i've noticed an "error" you should wish to correct under rover (WER #73, p. 136): "dogs are individuals . . . the person who decides what environment is most suitable for my dog is" instead of "my dog," say, "Me"? that's an interesting idea.

it's something like saying in the absence of

the sacred (#73, p. 4) is half about indians but i'll just tell you about the technology half because that's what's germane. and then finding out they are indeed halves and can't be separated.

if as the man says in his book that we are dealing with an essential complementarity, instead of a separate issue, it might be wise as well as just to critique and excerpt the other half. maybe let him do it? i am reading the book now, and it is by no means just a catalogue of atrocities. there may be some guidance in it which would help get us out of a nasty mess, the worst being yet to come.

but what i wanted to ask you about, can you put me in contact with a group practicing bioregional living? thanks a lot.

Wendell Bernard
p. o. box 172
Las Vegas, New Mexico 87701

Gosh, we like 'em both

Bravo for "Questioning Technology" (WER #73)! This issue will become a collector's item in at least one household — mine.

Indeed, American society is split into at least two radically different camps. First, the high-tech world overflows with very optimistic, sometimes euphoric, individuals who believe that the future is very promising. Second, the mainstream socio-political world is inhabited by dinosaurs — men & women whose imaginations are bankrupt. These pretentious, weary individuals spread cynicism like a cancer.

Your essays urge readers to reflect upon each camp. As a result, all of us benefit.

André Bacard
Stanford, California

Confections & (ulp)dates

Factsheet Five (*multiple mentions in "zines" column*) has a new address: P. O. Box 8026, Atlanta, GA 30306-0026. A sample copy now costs \$5 in the US, \$8 overseas. A subscription is \$20/year in the US (\$30 first class; \$40 international).

From WER #72 (Fall 1991): IDRC Reports (p. 53) is also published in French as CRDI Explore and Spanish as CIID Informa.

From The Electronic Whole Earth Catalog: Uncle Van's Chord Book is now available from Van Rozay, P. O. Box 1635, Keakekua, HI 96750. ♦

GOSSIP

The wheel is turning at Gate Five Road: Hank and Robin got married, Tex took off for the electronic frontier, Gail and M and Julian joined the WELL staff, and Anne Herbert was cited in *Glamour* magazine.

Hank Roberts, longstanding WER Proofreader Extraordinaire, and Robin Ramsey, the WELL's Accounts Manager, got married in Ashland, Oregon, on Friday, December 27, 1991. Congratulations, Hank and Robin. Many happy returns. I hope I spelled your names correctly!

John Coate (known to most as Tex), formerly Marketing Director and Conferencing Manager for the WELL, has accepted an attractive offer to head up a new expedition into uncharted telecom territory. John's real job was community builder. In 1986, when the online party was just getting rolling, Tex was the one who made house calls on the WELL's hosts. His penchant for communicating up-close and personal has earned him notoriety as an invader of personal space: Tex likes to talk to people from about two inches away. The monthly WELL office parties that have helped create the real community within



Marriage of the Meticulous: Hank and Robin tie the knot.

the virtual community originated as a birthday party for Tex, five years ago. When he announced recently that he was leaving the WELL staff, the WELL community threw an appropriately raucous and maudlin testimonial/roast/farewell party.

The opportunity that lured Tex is the position of Director of Interactive Ser-

vices for 101 Online, a new online service that includes low-cost terminals that can be plugged into your telephone. The key to this mass-medium form of online communication is that you don't need a computer: "For ten bucks a month, you get email, news services, and home shopping. For three bucks an hour more, you can enter the Forum and chat with people in real-time." Happy trails, Tex. And welcome to the electronic frontier, 101.

We were all wondering who the heck could even come close to taking on the job of Conferencing Manager when Gail Ann Williams emerged from the WELL. She learned to use a computer (and stumbled upon the WELL) when she managed a satirical theater collec-

tive — The Plutonium Players, where she also wrote, codirected and acted, often as Virginia Cholesterol of Ladies Against Women. She has a magnificent smile, adroit online manners, and a theatrical background — all good qualifications for this particularly odd job.

M Normal™, another WELL-dweller, artist, and multimedia prankster, has joined the WELL's customer support staff. Julian Gordon has come on board as system operator at an especially action- and stress-packed time: the WELL has joined the Internet. That means that the WELL is connected via special high-speed communication lines to the vast network of networks that has spread all over the world. People with WELL accounts will be able to ride the Internet into the WELL, and people within the WELL can venture outward, to explore the libraries, games, communities, and intellectual free-for-all out there in cyberspace. It isn't a simple transition, technically or culturally.

Glamour magazine was the latest publication to zero in on former *CoEvolution Quarterly* editor Anne Herbert's brilliant meme: "Practice random kindness and senseless acts of beauty." Anne wrote down the phrase on a paper placemat in a Sausalito restaurant. A man at the next table said, "That's wonderful," and copied



Clara the Survivor peers from the questionable security of a cigarette carton. She and her seven aunts recently finished a ten-day course of antibiotic injections at the hands of Kathleen O'Neill and James Donnelly. The process left the rodents swollen, stiff and surly, but only one perished.

The widespread prejudice against household rats is often entirely justifiable.

1991 Statement of Ownership

it on his own placemat. "The idea," as Anne explains it, "is: Anything you think there should be more of, do it randomly." Judy Foreman spotted the phrase spray-painted on a warehouse wall a hundred miles from her home. It haunted her, and she drove back to the site to copy it accurately. Her husband Frank put it up on his seventh-grade classroom wall; one of his students gave it to her mother, *San Francisco Chronicle* columnist Adair Lara, who did a spectacular job of propagating it. The whole story is in the December 1991 issue of *Glamour*. What goes around comes around, almost always in odd ways. —Howard Rheingold

Stanford got our ACT together

The staff and board of Point Foundation want to thank the Stanford Business School Alumni Consulting Team (ACT) volunteers for their help in shaping our business strategy for the foreseeable future (see #72, p. 136). For eight months, these folks worked after hours to research, evaluate and make recommendations about how *Whole Earth Review* can increase its circulation and effectiveness for social change and improve its financial position.

The ACT group volunteers: Charles Cagnon, team leader; Marge Bushman; Sparky Campanella; Jim Gregory; Jack Ladd; Bill Musick; William Pryor; Pam Seidenman; Seth Fearey, liaison to ACT; Cynthia Salisbury, project development. Thanks for a fantastic job! —Kelly Teevan

Dear Reader,

We'd like to hear how *Whole Earth Review* (or its predecessor, *CoEvolution Quarterly*) has been helpful to you. How was a specific review or article useful? In what ways have *WER/CQ* been important in your life? If we think your story is particularly moving or exemplary, we'll ask your permission to feature it in a direct-mail campaign for new subscribers, planned for this year. Help us extend the impact and vision of *Whole Earth Review*. Please send your testimonials and comments to Tom White c/o *WER*, P. O. Box 38, Sausalito, CA 94966. —Tom White

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1) Sales through dealers and carriers, street vendors and counter sales:	14,987	14,491
2) Mail subscription:	22,963	23,097
C) Total paid circulation:	37,922	37,588
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E) Total distribution:	38,422	38,088
F) Copies not distributed:		
1) Office use, left over, unaccounted for, spoiled after printing:	694	372
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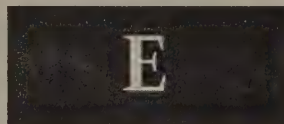
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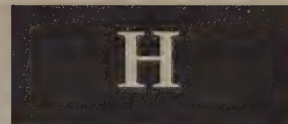
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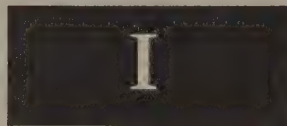
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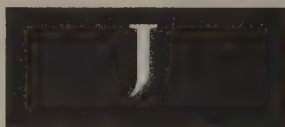
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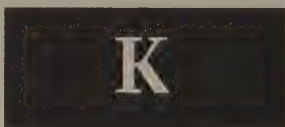
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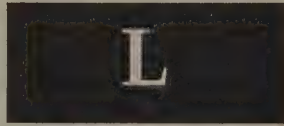
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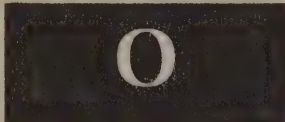
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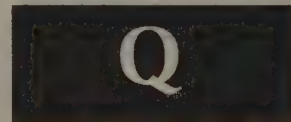
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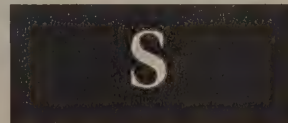
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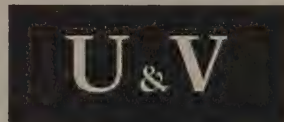
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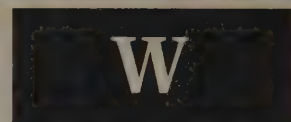
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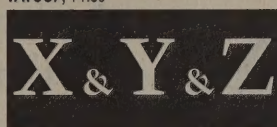
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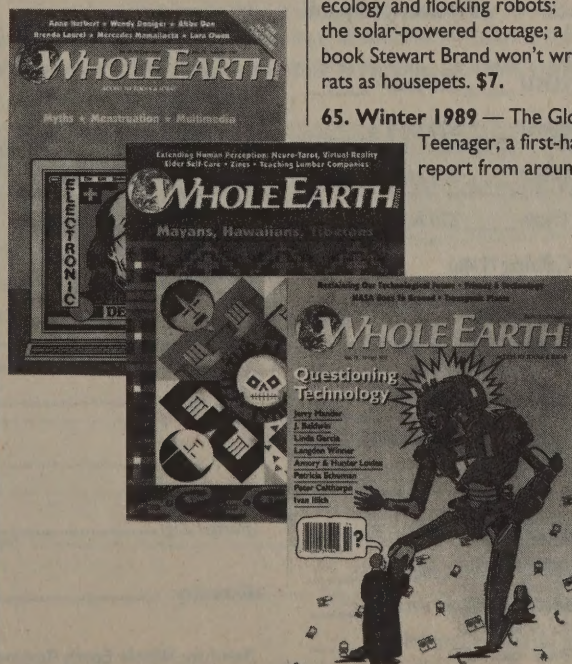
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"NEWS THAT STAYS NEWS" is how we like to think of what we publish. Many of our old issues are remarkably timely since we often cover topics several years before other publications do, and because our old interests keep resurfacing as news.

Some recent issues are described below. Write us for a complete listing.

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73. Winter 1991 — Questioning technology: Jerry Mander, Langdon Winner, Howard Levine, Peter Calthorpe, J. Baldwin, Ivan Illich, Amory and Hunter Lovins, William Calvin, and others debate the merits, drawbacks, and outcomes of various technologies. \$7.

72. Fall 1991 — Extending human perception with Nightwalking, lucid dreaming, virtual reality, psychedelics, and Neuro-Tarot; cultural survival of Hawaiians, Mayans, and Tibetans; eldercare; renting with Rover; Art Kleiner on corporations. \$7.

69. Winter 1990 — Access to Japan, including: the origins of Japanese group-mindedness; Michael Phillips on US-Japan relations; Bruce Sterling on Japanese pop music; the role of whaling in Japanese culture; Japanese environmental groups. Plus Murray Bookchin and Dave Foreman. \$7.

67. Summer 1990 — Biosphere II, an airtight glass ark for eight people and 1,000 species of wildlife; artificial ecology and flocking robots; the solar-powered cottage; a book Stewart Brand won't write; rats as housepets. \$7.

65. Winter 1989 — The Global Teenager, a first-hand report from around

the world; the rock'n'roll revolution in the Baltics; how to teach English in Japan; spontaneous healing and miracle cures; a free worldwide computer network. \$7.

63. Summer 1989 — Is the body obsolete? Downloading humans into computers; how culture shapes bodies; opinions by Susan Griffin, William Burroughs, Marvin Minsky, Sallie Tisdale, and others. \$7.

62. Spring 1989 — Revival of the goddess; the flourishing of a cooperative movement in Mondragon, Spain; environmental idealism in Costa Rica; feminist journals; women and the martial arts. \$7.

61. Winter 1988 — Twentieth Anniversary issue: 85 one-page essays and interviews by old-timers and newcomers. Ed Abbey, Wendell Berry, Ken Kesey, Stephanie Mills, Ivan Illich, Lynn Margulis, R. Crumb. Michael Ventura on timelessness. \$7.

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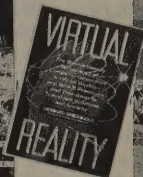
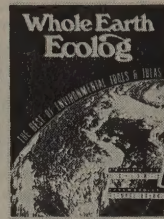
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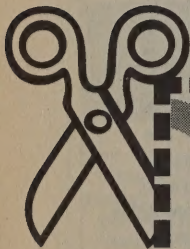
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